This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

**Usage guidelines**

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

**About Google Book Search**

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

NYPL RESEARCH LIBRARIES
3 3433 06910948 0

3-VDL
New Jersey

# MINUTES

OF THE

# AQUEDUCT COMMISSIONERS,

1886.

VOLUME 3.

NEW YORK:
EVENING POST JOB PRINTING OFFICE, BROADWAY AND FULTON STREET.
1890.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.
1905

MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Monday, January 4, 1886, at 3 o'clock P. M.

---

The Commissioners met pursuant to call from the Committee on Construction.

Present:

*Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER and BALDWIN.
Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

In the absence of the President and Vice-President, Commissioner Baldwin was elected Chairman of the meeting and presided.

The minutes of the Stated Meetings of December 2d, 9th, 16th, 23d and 30th were read and approved.

In compliance with the request made by the Commissioners November 25, 1885, the Commissioner of Public

Works, under date of December 30, 1885, submitted forms of contract, specifications and bonds for doing the work and furnishing the materials for constructing Sections 12, 13 and 14 of the new Croton Aqueduct from the easterly side of the Harlem River to One Hundred and Thirty-fifth street and Convent avenue, in this city.

Commissioner SPENCER then offered the following resolution, which was adopted by the affirmative vote of all the Commissioners present:

*Resolved*, That the forms of contract, specifications and bonds for the construction of the new Croton Aqueduct from the easterly side of the Harlem River, across and under said river; and thence southwardly to a point near One Hundred and Thirty-fifth street and Convent avenue, in this city, and designated Sections 12, 13 and 14, submitted to this Commission by the Commissioner of Public Works on the 30th day of December, 1885, be and the same are hereby approved and adopted; and the Secretary is hereby directed to have triplicate copies thereof certified by the Aqueduct Commissioners, and by the Counsel to the Corporation "as to form," and filed in accordance with Section 25, of Chapter 490, of the Laws of 1883.

The Committee on Construction made report, dated 28th December, 1885, in relation to acquiring the fee in lieu of an easement upon the lands of Samuel T. Knapp, Parcel 74; the Van Courtlandt estate, Parcel 75; and of James M. McLean, Parcel 76; and also in additional lands of Knapp and McLean adjoining said parcels, accompanied by a communication in relation thereto from the Counsel to the Corporation, dated December 24, 1885, and submitted the following resolutions:

*Whereas*, By the provisions of Section 2, Chapter 490, Laws of 1883, the Aqueduct Commissioners are authorized from time to time to change or modify the plan or plans adopted for the construction of a new Aqueduct, as may be necessary for the more efficient carrying out of the provisions of said act; and

*Whereas*, In the opinion of the said Commissioners, it is to the interest of the City that the grade of said Aqueduct, beneath Parcels Nos. 74, 75 and 76, in the upper part of the Twenty-fourth Ward of this City, should be elevated ten (10) feet above the grade shown upon the plans and maps approved and adopted by us on the 6th day of June, 1884, and filed in the office of the Register of the City and County of New York on the 9th day of July, 1884; and

*Whereas*, In the progress of the work upon said Aqueduct it has become apparent that in the construction of a tunnel beneath some part of the lands described upon said plans and maps as Parcels Nos. 74, 75 and 76, unforeseen physical obstacles will be encountered, which can be overcome by a change in the method of constructing said Aqueduct upon those lands, and for which purpose a surface right is required; therefore, it is

*Resolved*, That for the more efficient carrying out of the provisions of Chapter 490, of the Laws of 1883, of the State of New York, and pursuant to the provisions of Section 22 of said act, the Counsel to the Corporation is hereby requested to take, as soon as practicable, the legal steps necessary to amend the proceedings heretofore taken, and in lieu of an easement in perpetuity

beneath the surface, to acquire the fee of the parcels of land described upon the aforesaid approved maps as as Parcels Nos. 74, 75 and 76, and respectively owned by Samuel T. Knapp; the estate of Van Courtlandt and James M. McLean, and also to cause to be included and taken in fee the following parcels of land, viz.:

FIRST.—The land belonging to said Samuel T. Knapp, and lying between the aforesaid Parcel No. 74 and the lands of the old Croton Aqueduct on the west, and containing about four acres.

SECOND.—The lands belonging to James M. McLean, adjoining on the east the aforesaid Parcel No. 76, and bounded northerly by the boundary line between the City of Yonkers and the City of New York, and southeasterly by the lands of the estate of Van Courtlandt, and containing about $\frac{12}{1000}$ of an acre.

*Resolved*, That the modified plans and maps now submitted to us by the Chief Engineer, for the construction of the new Croton Aqueduct from the boundary line between the City of New York and the City of Yonkers, southward to the northerly side of a public road running southwesterly from Central avenue to Mosholu avenue, between the lands of Samuel T. Knapp and Joseph P. Disbrow; showing a grade for the said Aqueduct, between the points above named, elevated ten (10) feet above the grade shown upon the aforesaid map approved June 6, 1884, and also the above described additional parcels of land to be acquired from said Knapp and said McLean, and numbered respectively, Parcels 74½ and 76½, be and the same are here-

by approved and adopted by us, and ordered to be so certified and filed in this office, and designated "Final Plan Sheet No. 5½."

And the Secretary is hereby directed to transmit a certified copy thereof to the Commissioner of Public Works for filing in his office, and also to furnish to the Counsel to the Corporation, upon his request, as many certified duplicates of said plan and map as may be required for amending the proceedings as hereinbefore set forth.

The resolutions were adopted by the affirmative vote of all the Commissioners.

The Committee then presented a report and formal resolutions for the construction of the Sodom Dams and Reservoirs H and I, upon which action was deferred until the next Stated Meeting.

The Committee next submitted a decision of his Honor, Judge Lawrence, in relation to the jurisdiction of the Civil Service Rules and Regulations over the appointees of this Commission, and recommended that the Counsel to the Corporation be directed to appeal therefrom and have the matter determined by the Court of Appeals.

This recommendation was approved by the Commissioners, and the Secretary directed to communicate this action to the Counsel to the Corporation.

The Committee then submitted a report from the Chief Engineer upon the matter of allowances for timber sections in the Aqueduct tunnels, which was discussed, and

laid over for further information from the Chief Engineer as to the pecuniary result of the proposed changes in the timbering and rock excavation.

The Committee next made report, accompanied by one from the Chief Engineer, upon the selection of two competent Inspectors for special duty in the Aqueduct tunnels, and recommended the appointment of Charles T. Kalmbach and William W. Wheeler.

This recommendation was approved by the Commissioners, and the appointments made, to take effect when they are assigned to duty.

The Committee then recommended the following promotions in the Engineer Corps, and increase of the pay of the Janitor at the Tarrytown office, viz.:

Beverly R. Value, from Leveler to Transitman, with compensation at the rate of $125 per month.

Arthur B. Satterlee, Charles P. Bonnett, Louis P. De Luze, from Rodmen to Levelers, with compensation at the rate of $100 per month.

Richard C. Rathborne, Richard Baldwin, Jr., Robert A. McKim, Lincoln Frank, George C. Marrin, Charles E. Richards, Roland G. Rood, and Fred. W. Carpenter, from Chainmen to Rodmen, with compensation at the rate of $75 per month.

James McCarthy and James Walstead, from Laborers to Chainmen, with compensation at the rate of $60 per month.

And an increase of the compensation of James E. Taylor, Janitor, from $83.33 per month to $100 per month.

On motion of Commissioner SPENCER, the above-named

promotions, and increase of compensation, were approved by the Commissioners, all to take effect this day.

Under date of December 31st, the Comptroller gave notice of the issue of warrants for vouchers not certified by the Aqueduct Commissioners for advertising application for the appointment of Commissioners of Appraisal for the Manhattan Island sections of the new Aqueduct, amounting to $8,550, which was ordered placed upon file and entered upon the books of this Commission.

The Chief Engineer submitted a supplemental report, dated 30th December, upon the cost per mile of lining the sides and roof of the Aqueduct tunnels, which matter was laid over for future consideration.

The resolutions offered by the Commissioner of Public Works at the meeting of the 16th of December were then called up by him, and a letter from the Counsel to the Corporation in relation thereto was read, and on motion of Commissioner SPENCER, the resolutions were then unanimously adopted, as follows:

*Whereas*, By the terms of the existing contracts for the construction of the new Croton Aqueduct, it is explicitly stipulated that the contractor "shall take all necessary precautions and proper guards for the prevention of accidents;" that in the construction and use of the working shafts "he shall, whenever necessary, properly curb and thoroughly support the sides of the shafts;" that for lowering and hoisting men and materials he shall use the best appliances, "with safety catches of tested strength and efficiency," and "shall use the greatest precaution to assure perfect

safety" to life; that he "shall remove all loose or shaky rock," and "shall timber and properly support the roof and sides of the tunnels whenever, in the opinion of the engineers of this Commission, such timbering and support are required to insure safety;" that he "shall employ only competent, skillful men to do the work;" and

*Whereas*, By the provisions of said contracts power is vested in the Chief Engineer of this Commission to determine the appliances, supports, precautions and skill required by the aforesaid stipulations of the contracts are or are not sufficient, and if not sufficient, to order and require that they be made so; therefore be it

*Resolved*, That in view of the loss of human life that has already occurred, and for its protection hereafter, the Chief Engineer of this Commission is hereby directed to cause to be made a thorough examination of the present condition of the whole work now in progress upon the new Aqueduct, and to report to this Commission each and every case where the above-named provisions of the contracts to insure safety to life are not fully complied with, and that in all such cases he give, and enforce, the necessary orders to insure full compliance with the terms and intent of said contracts in this particular.

In compliance with the direction to the Secretary to advise with the Counsel to the Corporation in relation to the allowance of compensation during absence from sickness, to inspectors and others employed and paid by the

day, he made verbal report thereon; and on motion of the COMPTROLLER, the matter was referred to the Committee of Finance and Audit.

The Committee on Construction then submitted the bids received by them for the construction of culverts upon the dumping grounds at Shaft 19 and at Shaft 20, and recommended that the former be awarded to O'Brien & Clark, and the latter to Heman Clark at the prices named in their respective bids.

This recommendation was approved by the Commissioners, and the Secretary directed to prepare the necessary agreements for the construction of said culverts, and also the certificates required by Section 33 of the act.

Commissioner SPENCER asked leave to place upon the files of this Commission his views upon the construction of the Sodom dams and reservoirs, which was granted, and the Secretary directed to place them upon file.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, January 6, 1886, at 3 o'clock P. M.

---

Commissioners present:

*The Comptroller.*
*Commissioners* SPENCER, DOWD and Baldwin.

Also Chief Engineer Church and Consulting Engineer Davis, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works, and many citizens.

Vise-President DOWD presided.

The public hearing upon the construction of the proposed Quaker Dam Bridge and reservoir, and other dams and reservoirs upon the Croton River, was resumed, pursuant to adjournment from December 30th.

Among the citizens present were Messrs. O. B. Potter, James E. Serrell, Alexander M. Ross, Cornelius O'Rielly, Charles H. Haswell, George W. Hall, and others.

A letter from Mr. James Wood of Mt. Kisco, N. Y., dated the 5th inst., in relation to the water of the Croton Lake and its condition during the summer months, and favoring the deep reservoir to be created by constructing the Quaker Bridge Dam. The letter was read to those present, and ordered placed upon file.

Messrs. Potter, Ross, O'Rielly and Hall were heard by the Commissioners, and their statements recorded by the Stenographer of the Commission.

None others desiring to be then heard, the hearing was adjourned until Wednesday next, the 13th inst., at 3 o'clock P. M., and the regular order of business taken up.

On motion of Commissioner SPENCER the reading of the minutes of the special meeting of January 4th was deferred.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 1343 to 1351, which vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

Upon the recommendation of the same Committee, the following resolution was adopted:

*Resolved*, That the sum of five hundred dollars be appropriated for the purpose of purchasing additional copies of disc diagrams.

On motion of Commissioner BALDWIN, the following resolution was unanimously adopted:

*Resolved*, That the President and Vice-President are hereby authorized and requested, either one or the other of them, on behalf of the Aqueduct Commissioners, to execute the agreements between said Commissioners and O'Brien & Clark for constructing a culvert upon the dumping grounds of Shaft 19, in the City of Yonkers, and with Heman Clark for the constructing of a culvert upon the dumping grounds of Shaft 20, in the Twenty-fourth Ward of this city.

On motion of Commissioner SPENCER, all other business was laid over until the next regular meeting, and the Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, January 13, 1886, at 3 o'clock P. M.

---

Commissioners present:

*The Mayor.*
*The Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church and Consulting Engineer Davis, and Chief Engineer Birdsall, and Consulting Engineer Adams of the Department of Public Works, and many citizens.

The meeting was opened for public hearing pursuant to the following notice:

"AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, 280 BROADWAY, ROOM 209,
NEW YORK, January 6, 1886.

PUBLIC NOTICE—FINAL HEARING.

*To whom it may concern:*

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that full

opportunity will be afforded them to be heard in relation to the various plans now under consideration by the Aqueduct Commissioners for the location and construction of one or more of the following dams and reservoirs upon the Croton River, in the County of Westchester, viz.:

FIRST.—That known as 'Quaker Bridge Dam' and reservoir, about four miles below the present Croton Dam.

SECOND.—That known as the 'Muscoot Dam' and reservoir, at Muscoot Mountain, about six miles above the present Croton Dam.

THIRD.—A dam and reservoir on the east branch of the Croton River, and commonly known as the 'Sodom Dam and Reservoir I.'

All as shown upon the plans, maps and profiles in this office.

The said public hearing having been adjourned on the 12th of April, 1884, until further notice, and resumed at the office of the Aqueduct Commissioners, Room 209 Stewart Building, No. 280 Broadway, in the City of New York, on Wednesday, November 4th, and continued on Wednesdays, November 11th and 25th, and December 2d, 9th, 16th, 23d and 30th, 1885, and on January 6, 1886, will be continued on Wednesday, January 13, 1886, at 3 o'clock P. M., on which day the hearing with regard to the Sodom Dam and Reservoirs will be finally closed; and the hearing in relation to the other proposed dams continued upon such days thereafter to which the same may be adjourned, until finally concluded.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
*Secretary.*"

Among the citizens present were Messrs. O. B. Potter, Robert L. Darragh, James E. Serrell, Alexander M. Ross, George W. Hall, Joseph Benedict, William W. Bates, Patrick A. Cassidy and others.

Through J. C. Peters, M. D., a communication was received from the Medical Society of the County of New York favoring the immediate construction of the Sodom Dam and Reservoirs, and the building of the Quaker Bridge Dam and Reservoir also.

It was read to those present, and ordered placed upon file.

Mr. Edwin E. Glaskin, presented and read an argument against the construction of the Quaker Bridge Dam, which was ordered placed upon file.

On motion of Commissioner DOWD, the following resolution was passed by the Commissioners:

*Resolved*, That the Engineers of this Commission, and also those of the Department of Public Works, be requested to prepare, as soon as practicable, written statements of their views and reasons why the Quaker Bridge Dam and Reservoir should be constructed, and that such statements be given to the public.

Commissioner BALDWIN presented resolutions fixing the 27th of this month as the day of final public hearing in relation to the Quaker Bridge and Muscoot Dams and Reservoirs.

The resolutions were read for the information of the public, and action thereon deferred until the next regular meeting.

As there were none others present desiring to be heard, the public hearing was then adjourned until Wednesday next, January 20th, at 3 o'clock P. M., and the regular order of business taken up.

On motion of Commissioner SPENCER, the reading of the minutes of the meetings of January 4th and 6th was deferred.

The Committee of Finance and Audit reported their examination and certification of the monthly estimates of work done by the contractors in the month of December last, amounting to $333,714.26, and included in vouchers Nos. 1352 to 1362; also their examination and audit of bills included in vouchers Nos. 1363 to 1388, all of which were approved by the Commissioners, and ordered certified to the Comptroller for payment.

The Committee on Construction made report, dated January 11th, recommending, for reasons therein stated, that in lieu of a per diem compensation, the two inspectors lately appointed and assigned to special duty upon the new Aqueduct tunnels, be paid at the rate of $160 per month, as compensation, and to cover their taveling expenses.

This recommendation was not approved by the Commissioners.

The report of the Committee on Construction, dated December 30th, submitting formal resolutions directing the construction of the Sodom Dams and Reservoirs, was then considered.

On motion of Commissioner BALDWIN, the Commissioner of Public Works was requested to furnish additional plans

and maps for the construction of the said dams and reservoirs, and action upon the resolutions for the formal adoption of the plans was deferred, and the Secretary directed to confer with the Counsel to the Corporation upon certain questions relating to an increased area of the reservoirs at that place.

The report of the same Committee of January 4th, with regard to the methods of timbering in the Aqueduct tunnels, and as to certain allowances asked for by the contractors in connection therewith, was next considered, together with the Chief Engineer's report thereon, of a subsequent date.

The matter was laid over, with instructions to the Chief Engineer to consult the Counsel to the Corporation upon certain legal questions involved therein.

The report of December 23d, from the same Committee, in relation to lining the tunnel throughout its entire length, was next considered, but action thereon deferred.

The property maps required to be filed in the proceedings now pending, to amend former proceedings, and to acquire fee rights, and include other property upon and adjoining Parcels Nos. 74, 75 and 76, in the upper part of the Twenty-fourth Ward of this city, were then submitted to the Commissioners for approval and certification.

Commissioner BALDWIN then offered the following resolution:

*Resolved,* That the six similar property maps prepared, and now submitted to us, in compliance with the resolutions adopted the 4th day of January, 1886, for the

purpose of amending proceedings heretofore taken, and to include other property, as shown and described upon Final Plan Sheet No. 5½, approved and adopted by us on that day, be and the same are hereby approved, and directed to be certified and transmitted to the Counsel to the Corporation for filing, and for delivery to the Commissioners of Appraisal, in accordance with the provisions of Chapter 490 of the Laws of 1883.

The resolution was adopted by the affirmative vote of all the Commissioners, and the maps duly certified by them, and the Secretary was directed to transmit Maps Nos. 1 and 2 to the Counsel to the Corporation for filing in the office of the Register of the County of Westchester, and the County of New York, and also Nos. 4, 5 and 6, for delivery by him to the Commissioners of Appraisal, and to place Map No. 3 on file in this office.

Notice was received from the Comptroller of the issue of warrants for vouchers not certified by the Aqueduct Commissioners, appertaining to the work of the Commissioners of Appraisal:

| | |
|---|---|
| For New York County | $4,896 00 |
| And for Westchester County | 4,013 99 |
| Total | $8,909 99 |

which was ordered placed upon file and entered upon the books of this Commission.

A letter was received from the Counsel to the Corporation in relation to furnishing maps and witnesses on behalf of the City in certain cases now pending before the

Commissioners of Appraisal for Westchester County, which matter was referred to the Chief Engineer, with instructions to furnish what the Counsel requires.

Communications were received and read from the Secretary of the Civil Service Board to his Honor Mayor Grace, and to the Secretary of this Commission, requesting that the employees of this Commission be classified for examination under the Civil Service Rules of the City, and that a list of their names, residences, position, compensation and date of appointment be furnished to the said Board.

On motion of Commissioner DOWD, the Secretary was directed to prepare the aforesaid list and submit it to the Committee of Finance and Audit for approval, and transmission to the Civil Service Board.

A reply to the request of the Commissioners to the Counsel to the Corporation that he appeal from the decision of Judge Lawrence in relation to the jurisdiction of the Civil Service Law over employees of this Commission was received and read, the Counsel advising that no appeal be taken.

On motion of Commissioner SPENCER, the action of the Commissioners upon this subject at their meeting of 4th inst. was reconsidered, and the matter fully discussed.

Commissioner SPENCER then moved that the Counsel to the Corporation be requested to appeal from the decision of Judge Lawrence, and have the question determined by the Court of Appeals.

This motion was carried by the affirmative vote of the Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin; the Mayor voting in the negative, and the Secretary was directed to inform the Counsel to the Corporation of this action.

Commissioner SPENCER presented a letter from James H. Caulfield, offering to furnish the Commission with copies of all bills presented to the Senate and Assembly during the present session, for the sum of $50, payable at the adjournment of the Legislature, and, on motion of Commissioner SPENCER, this offer was accepted.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, January 20, 1886, at 2 o'clock P. M.

---

Commissioners present:

*The Mayor.*
*The Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall of the Department of Public Works, and many citizens.

The Commissioners met to open bids received in pursuance of the following notice published daily from December 30, 1885, to date, in the *City Record*, New York *Sun* and New York *Star;* also semi-weekly in the *Commercial Advertiser*, *Evening Post* and *Daily Graphic:*

"AQUEDUCT COMMISSIONERS' OFFICE,
ROOM 209 STEWART BUILDING,
NEW YORK, December 30, 1885.

*To Contractors:*

Bids or proposals for constructing Sections 12, 13 and

14 of the new Croton Aqueduct in the Twelfth Ward of the City of New York, will be received at this office until Wednesday, January 20, 1886, at 2 o'clock P. M., at which place and hour they will be publicly opened and read by the Aqueduct Commissioners; and the award of the contracts will be made by said Commissioners as soon thereafter as practicable.

The portion of the new Aqueduct, for which bids are hereby invited, is from the easterly side of the Harlem River, across and under that river, and thence southward to One Hundred and Thirty-fifth street and Convent avenue, a distance of 13,800 feet; the whole being in tunnel and divided into three sections.

Bidders can bid for either one or more of the sections, but each section must be bid for, *and will be awarded*, separately. Any bidder for more than one section who will not accept an award for one section only, must so state in his bid.

Each bid must be enclosed in a sealed envelope, indorsed with the name of the person or persons making the same, and the section for which it is made.

Each bid must state the name and place of residence of the persons making the same, and the names of all persons interested with them therein, also that it is made without any connection with any other persons making another bid for the same work, and is in all respects fair and without collusion or fraud; that no member of the Aqueduct Commission, or of the Common Council, no head of a Department, Chief of a Bureau, Deputy thereof or Clerk therein, or other officer of the Corporation, or any person in the employ of the Aqueduct Commissioners, is directly or indirectly interested in the bid, or in the work to which it relates, or in the profits thereof.

Each bid must be verified by the oath of the parties making the same that the several matters therein stated are true, and must be accompanied by a certified check upon a National or State Bank of the City of New York, drawn to the order of the Comptroller of the City of New York, for an amount not less than five per cent. of the amount of the security required for the faithful performance of the contract. Such check must NOT be inclosed with the bid or proposal, but must be delivered to the Aqueduct Commissioners, or to their Secretary, for delivery to the Comptroller. All deposits, evcept those of the successful bidders, will be returned by the Comptroller to the persons making the same, within three days after the contracts are awarded. If the successful bidders shall neglect or refuse to execute the contract within ten days after notice of the award to them, the amount of their deposits will be forfeited to and retained by the City of New York as liquidated damages for such neglect or refusal, pursuant to the provisions of Section 29 of Chapter 490 of the Laws of 1883; but if they shall execute the contracts within the time aforesaid, the amount of their deposits will be returned to them.

The amount of security required in the contracts for each section is as follows:

Section 12. Fifty-five thousand dollars.

Section 13. Fifty-seven thousand dollars.

Section 14. Eighty-five thousand dollars.

The surety required is that of two or more householders or resident freeholders of the State of New York (who must collectively qualify for double the amount of the bond) or an approved surety company incorporated under the laws of this State.

The names and residences of the sureties must be stated in the bids.

The Aqueduct Commissioners reserve the right to reject any and all bids if they deem it for the best interest of the city so to do.

Blank forms of bid or proposal, and proper envelopes for their inclosure, forms of the contract, specifications and bond, copies of plans, and all other information required, can be obtained at the office of the Aqueduct Commissioners, Room 209 Stewart Building, New York.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
*Secretary.*"

The Bid-box was opened by the Commissioners, and the following bids, upon which the required deposit had been duly made, were opened and read aloud:

*For Section* 12.

| | |
|---|---|
| Douglass, Dalzell & Douglass, | Rogers & Co., |
| O'Brien & Clark, | Brown, Howard & Co., |
| Arnold & Stevens, | John Cox & Co., |
| Malone & Mathews, | Collins & Farwell, |
| Beckwith & Quackenbush, | Paige, Smith & Carey, |
| Brodhead & Lentz, | Michael S. Coleman, |
| Smith, Ripley & Casement, | P. P. Dickinson. |

*For Section* 13.

| | |
|---|---|
| Douglass, Dalzell & Douglass, | Rogers & Co., |
| O'Brien & Clark, | Brown, Howard & Co., |
| Arnold & Stevens, | John Brunton & Co., |
| Malone & Mathews, | John Cox & Co., |
| Beckwith & Quackenbush, | Collins & Farwell, |
| Brodhead & Lentz, | Paige, Smith & Carey, |
| Smith, Ripley & Casement, | Michael S. Coleman. |

*For Section* 14.

Douglass, Dalzell & Douglass,
O'Brien & Clark,
Arnold & Stevens,
Malone & Mathews,
Beckwith & Quackenbush,
Smith, Ripley & Casement,
Rogers & Co.,
Brown, Howard & Co.,
John Brunton & Co.,
John Cox & Co.,
Collins & Farwell,
Paige, Smith & Carey,
Michael S. Coleman.

The Chief Engineer and Secretary were then directed to have said bids calculated and tabulated, for canvassing by the Commissioners, at 2 o'clock P. M., on Saturday next, the 23d inst., and the bids were referred to the Committee of Finance and Audit for examination as to their formality, and the sufficiency of the surety offered by the bidders.

On motion of Commissioner BALDWIN, Commissioner Spencer was requested to act with said Committee in such examination.

The public hearing was then resumed, pursuant to the following notice:

"AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, 280 BROADWAY, ROOM 209,
NEW YORK, January 15, 1886.

PUBLIC NOTICE—FINAL HEARING.

*To whom it may concern:*

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation

to the various plans now under consideration by the Aqueduct Commissioners for the location and construction of one or more of the following dams and reservoirs upon the Croton River, in the Counties of Westchester and Putnam, viz.:

FIRST.—That known as 'Quaker Bridge Dam' and reservoir, about four miles below the present Croton Dam.

SECOND.—That known as the "Muscoot Dam" and reservoir, at Muscoot Mountain, about six miles above the present Croton Dam.

THIRD.—Dams and reservoirs on the east branch of the Croton River, commonly known as the "Sodom Dams and Double Reservoirs I,' including Kishowauna Lake.

All as shown upon the plans, maps and profiles in this office.

The said public hearing having been adjourned on the 12th of April, 1884, until further notice, and resumed at the office of the Aqueduct Commissioners, Room 209 Stewart Building, No. 280 Broadway, in the City of New York, on Wednesday, November 4th, and continued on Wednesdays, November 11th and 25th, and December 2d, 9th, 16th, 23d and 30th, 1885, and on January 6th and 13th, 1886, will be continued on Wednesday, January 20, 1886, at three 3 o'clock P. M., and upon such days thereafter to which the same may be adjourned, until finally concluded.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
*Secretary.*"

The COMMISSIONER OF PUBLIC WORKS, in compliance with the request of the Aqueduct Commissioners of the

13th inst., presented further detailed plans and specifications for the construction of the Sodom Dams and Double Reservoirs I, as follows:

Exhibit EE, being plans for dam and reservoir on the east branch of the Croton River.

Exhibit GG, being plans for dam on outlet of Lake Kishowauna.

Exhibit FF, being a general map of lands required for the double reservoir. And an estimate of quantities and cost of same.

All of which was submitted to the public, and placed on exhibition in the Commissioners' office.

The Commissioners were addressed by Messrs. O. B. Potter, Joseph Benedict and Alexander M. Ross, and a written statement presented by Mr. Cornelius O'Rielly, on behalf of the Taxpayers' and Business Men's Association; which was read, and ordered placed upon file.

None others present desiring to be heard, Commissioner BALDWIN called up the resolution offered by him at the last meeting, which was again read for the information of the public, viz.:

*Whereas*, In compliance with the requirements of Section 2, Chapter 490, of the Laws of 1883, that "prior to the adoption of plans for the construction of a new Croton Aqueduct, dams and reservoirs, the Aqueduct Commissioners shall afford to all persons interested a full opportunity to be heard respecting such plans;" public hearings in relation to the plans for the construction of the dams and reservoirs commonly known as the "Quaker Bridge Dam and Reservoir," the "Muscoot Dam" and the "Sodom Dams and

Reservoirs I," were commenced upon the 12th day of September, 1883, and continued from time to time until the 12th day of April, 1884, and resumed on the 4th day of November, 1885, and thereafter continued at the regular weekly meetings of said Commissioners until the present time; publice notice of all such hearings having been given; and

*Whereas*, The maps, plans, specifications, estimates and particulars relating to said dams and reservoirs have at all times been open to public inspection in the office of the Aqueduct Commissioners, and been submitted to public examination and criticism at the numerous public hearings above-named, and all persons interested afforded full opportunity to be heard in relation thereto; now, therefore, be it

*Resolved*, That the public hearings respecting the aforesaid dams and reservoirs be finally closed on Wednesday, January 27, 1886, and that after that time any persons desiring to submit further information or testimony upon the subject may do so in writing.

The resolution was adopted by the affirmative vote of all of the Commissioners, and the public hearing was adjourned until Wednesday next, January 27th, at 3 o'clock P. M.

The regular order of business was then taken up, and the Commissioners proceeded to the election of officers of the Commission for the current year.

On motion of Commissioner BALDWIN, his Honor Wm. R. Grace, Mayor, was unanimously elected President, and

Commissioner William Dowd Vice-President of the Commission.

On motion of Commissioner SPENCER, Messrs. Dowd, Baldwin and the Comptroller were reappointed the Committee of Finance and Audit.

On motion of Commissioner DOWD, Messrs. Spencer, Baldwin and the Commissioner of Public Works were reappointed the Committee on Construction.

On motion of Commissioner BALDWIN, the reading of the minutes of January 4th, 6th and 13th was deferred.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 1389 to 1407; which vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

The same Committee recommend that as all of the accounts of Mr. W. S. Wilson, late Purveyor of the Commission, had been properly closed, the Secretary be authorized to return to Mr. Wilson the bond given by him as Purveyor.

This recommendation was approved by the Commissioners, and the Secretary directed to return the bond.

The Committee next presented the following resolution, which was adopted unanimously:

*Resolved*, That an additional appropriation of one hundred and twelve ($112) dollars be made for contract drawings for Sections 12, 13 and 14 of the new Croton Aqueduct.

The Committee on Construction presented a communication addressed to them by the Chief Engineer, dated January 12th, recommending that Duncan McRae Livingston be appointed a Tracer in the Draughting Department of this Commission, with compensation at the rate of $40 per month, in which recommendation the Committee concurred.

On motion of Commissioner SPENCER, the appointment was made, at the rate of compensation above-named, to take effect this day.

Under date of January 16, 1886, the Comptroller gave notice of the issue of warrants for vouchers not certified by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal for the City and County of New York, amounting to $1,527.61; which notice was ordered placed upon file and entered upon the books of this Commission.

The Commissioners then adjourned, to meet at 2 o'clock P. M. on Saturday next, 23d inst.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Saturday, January 23, 1886, at 2 o'clock P. M.

---

Commissioners present:

*The Mayor.*
*The Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church and Consulting Engineer Davis, and Chief Engineer Birdsall of the Department of Public Works.

The Commissioners met pursuant to adjournment from Wednesday last, to canvass the bids for constructing Sections 12, 13 and 14 of the new Croton Aqueduct, and went into Executive Council for that purpose.

The Committee of Finance and Audit made verbal report upon the formality of the various bids, and of the information so far obtained by them in relation to the sureties offered.

The Chief Engineer and Secretary presented tabulated statements of all the bids, showing the details, amount and order of the bids for each section, all of which were fully considered by the Commissioners.

Messrs. John C. Rodgers, Richard A. Malone, David R. Paige and John Brunton were separately called in and questioned as to their experience in such work, the responsibility of the sureties offered by them respectively, and the bond to be given in the event of an award to either of them.

To enable these and other bidders to furnish further information, the Commissioners decided to defer making awards until Thursday next, and then resumed the open session.

Many of the bidders being present, the Mayor announced that the Commissioners desired that all information in relation to the sureties offered by the various bidders should be furnished on or before Thursday next, 28th inst., at 2 o'clock P. M., at which time the Commissioners would resume convassing the bids.

The minutes of the meetings of January 4th, 6th, 13th and 20th were then read and approved.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, January 27, 1886, at 3 o'clock P. M.

---

Commissioners present :

*The Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

Vice-President DOWD presided, and opened the meeting for public hearing pursuant to the following notice:

" AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, 280 BROADWAY, ROOM 209,
NEW YORK, January 21, 1886.

PUBLIC NOTICE—FINAL HEARING.

*To whom it may concern* :

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York,

public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation to the various plans now under consideration by the Aqueduct Commissioners for the location and construction of one or more of the following dams and reservoirs upon the Croton River, in the counties of Westchester and Putnam, viz.:

FIRST.—That known as 'Quaker Bridge Dam' and reservoir, about four miles below the present Croton Dam.

SECOND.—That known as the 'Muscoot Dam' and reservoir, at Muscoot Mountain, about six miles above the present Croton Dam.

THIRD.—Dams and reservoirs on the east branch of the Croton River, commonly known as the 'Sodom Dams and double Reservoirs I,' including Kishowauna Lake.

All as shown upon the plans, maps and profiles in this office.

The said public hearing having been adjourned on the 12th of April, 1884, until further notice, and resumed at the office of the Aqueduct Commissioners, Room 209, Stewart Building, No. 280 Broadway, in the City of New York, on Wednesday, November 4, and continued on Wednesdays, November 11 and 25, and December 2, 9, 16, 23 and 30, 1885, and on January 6, 13 and 20, 1886, will be continued on Wednesday, January 27, 1886, at 3 o'clock P. M., and will then be finally closed.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
*Secretary.*"

Among the citizens present were Messrs. O. B. Potter, Robert L. Darragh, Joseph Benedict, James E. Serrell, William H. Webb, Alexander M. Ross, Patrick Cassidy, Cornelius O'Reilly and others.

The Commissioners were again addressed by Messrs. Potter, Webb, Darragh, Ross and Cassidy in opposition to the construction of the Quaker Bridge Dam, and by Mr. Joseph Benedict in favor of it.

A communication was received from Salem H. Wales, Esq., giving reasons why, in his opinion, the question of constructing the new dams and reservoirs on the Croton River can safely be left to the decision of the Aqueduct Commissioners; which was read and ordered placed on file.

Mr. William H. Webb then read from the preamble to the resolution, passed by the Commissioners at their meeting of the 20th inst., in relation to the final closing of the public hearings, and claimed that the same was incorrect, inasmuch as he had not been furnished the detailed working plans and specifications regarding the Quaker Bridge Dam, which he and others had demanded.

Vice-President Dowd replied that the Commissioners had submitted to the Counsel to the Corporation the question whether the maps, plans, specifications, estimates and particulars which during the past two years have been furnished by them for public inspection and information, and been discussed at the many public hearings, were a full compliance with the requirements of the law; and having received answer from him that they not only were so, but in fact apparently prepared in

greater detail than the act contemplates, the Commissioners would be governed by that opinion.

Mr. Webb protested against such action of the Commissioners, and stated that until he was furnished with such plans and specifications as he required, he protested against the closing of the public hearings in relation to said dam. Mr. Robert L. Darragh united in this protest, and both gentlemen were given liberty to file their protests in writing.

Vice-President DOWD then asked if there was any one else present who desired to be heard before the final closing of the hearing.

No one responded, and Commissioner SPENCER then called up the report of the Committee on Construction of 30th December last, submitting formal resolutions for the construction of the Sodom dams and reservoirs.

The resolutions were read, as follows:

*Whereas*, In our opinion the interests of the City demand that provision should at once be made for impounding an additional quantity of water to supply to the new Croton Aqueduct, concurrently with its completion; and

*Whereas*, In our opinion, that object can best be accomplished by the construction of the proposed dams and reservoirs, known as the "Sodom Dams and double Reservoirs I," including Kishowauna Lake upon the east branch of the Croton River, wherein an additional quantity of water, estimated at about

9,000,000,000 gallons, can be impounded; now, therefore, be it

*Resolved*, That this Commission hereby directs the construction of said dams and reservoirs, and the Commissioner of Public Works is hereby requested to prepare and submit to us, in addition to the plans, maps, specifications, estimates and details heretofore submitted by him, such further maps, plans and specifications, estimates and details of the lands, work and materials required for the construction of said dams and reservoirs as will determine the exact location of the same, and facilitate the prompt construction thereof, to the end that the same may be formally approved and adopted by the Aqueduct Commissioners, and the said dams and reservoirs be constructed at the earliest date practicable.

*Resolved*, That the Commissioner of Public Works is also hereby requested to prepare and submit, as soon as practicable, to this Commission for approval, the six (6) similar property maps and plans of the proposed sites of the aforesaid dams, reservoirs and appurtenances, as required by the provisions of Section 4, Chapter 490, of the Laws of 1883.

On motion of Commissioner SPENCER, the resolutions were then adopted by the affirmative vote of all the Commissioners present.

The VICE-PRESIDENT then announced that in pursuance of the decision of the Commissioners at their meeting of the 20th inst., and of the public notice heretofore given, he now declared the public hearings in relation to the

construction of the proposed dams and reservoirs, known as the "Quaker Bridge Dam and Reservoir," the "Muscoot Dam," and the "Sodom Dams and double Reservoirs I," finally closed, and that any person interested who desired to submit to the Commissioners further information or testimony in relation to said Quaker Bridge Dam and Reservoir could do so in writing on or before the 1st day of March next.

The Commissioners then adjourned, to meet at 2 o'clock P. M. to-morrow, 28th inst.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Thursday, January 28, 1886, at 2 o'clock P. M.

---

Commissioners present:

*The Mayor.*
*Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.
Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The Commissioners met, pursuant to adjournment, to resume canvassing the bids for constructing Sections 12, 13 and 14 of the new Croton Aqueduct, and went into Executive Council for that purpose.

Upon resuming the open session, the MAYOR moved that the contract for constructing Section 12 of the new Aqueduct be awarded to Rodgers & Co., they being the lowest bidders for that section.

Commissioner SPENCER offered as an amendment to the

motion of the Mayor that the contract for constructing said section be awarded to O'Brien & Clark.

Before voting upon the amendment, the COMPTROLLER gave his reasons for approving an award to persons who were not the lowest bidders, but who, by reason of their known experience and ability to do the work upon this section (which was the key to the whole Aqueduct), could best be relied on for its prompt and efficient performance.

In this view others of the Commissioners concurred; and the amendment was then adopted by the affirmative vote of the Comptroller, Commissioner of Public Works, Commissioners Spencer, Dowd and Baldwin; the Mayor voting in the negative.

The COMMISSIONER OF PUBLIC WORKS then offered the following resolution:

*Resolved*, That it is the sense of the Commissioners that the proper and prompt completion of the work upon the several sections, 12, 13 and 14, of the new Aqueduct is so intimately connected and dependent one section upon another, and can be so greatly facilitated by a concentration of power and direction that it is to the best interest of the City that the contracts for constructing all of said sections be awarded to some one bidder for all of said sections.

This resolution was lost by the following vote:

*In the affirmative—The Commissioner of Public Works and Commissioner Spencer.*

*In the negative—The Mayor, Comptroller, Commissioners Dowd and Baldwin.*

The COMPTROLLER then moved that the contracts for constructing Sections 13 and 14 of the new Aqueduct be awarded to John Brunton & Co., the lowest bidders.

This motion was adopted by the affirmative vote of all the Commissioners.

The MAYOR then declared the contracts awarded, as follows:

For constructing Section 12, to O'Brien & Clark.
For constructing Sections 13 and 14, to John Brunton & Co.

And the Secretary was directed to notify the parties of these awards, and also to give notice thereof to the Comptroller, with request that he return to the unsuccessful bidders for said sections the deposits made by them on the 20th inst.

The minutes of the meeting of January 23d and 27th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers 1408 to 1411; which vouchers were, on motion of Commissioner DOWD, approved by the Commissioners and ordered certified to the Comptroller for payment.

The Committee on Construction made report, dated 25th inst., upon the following matters:

1st. A request from Martin Kennedy, now an Overseer, that he be appointed Rodman, although his compensation would be thereby reduced.

The Committee recommended that the appointment be made, with compensation at the rate of $75 per month, to date from February 1st next, and it was so ordered by the Commissioners.

2d. Submitting the resignation of Solomon Davis, as Transitman, with recommendation that it be accepted at once, to enable him immediately to accept more remunerative employment elsewhere.

On motion of Commissioner SPENCER, Mr. Davis' resignation was accepted, to take effect from this date.

3d. A communication from the Chief Engineer in relation to lining the Aqueduct at Shafts 5 and 9, and calling up the subject of lining the Aqueduct throughout its entire length.

After discussion, the matter was laid over.

4th. In relation to a question of expense entailed upon one or the other of the contractors upon Sections 1 and 2, or upon the City, for the removal of an air-box, heretofore used by the contractor on Section 2, and now impeding the work of the contractor on Section 1, and therefore ordered by the Chief Engineer to be removed by the contractor on Section 2.

After discussion, the matter was laid over, and the Secretary directed to obtain the opinion of the Counsel to the Corporation upon the legal interpretation of the certain provisions of the contracts in relation to such cases of interference.

The Chairman of the Committee on Construction then called up the report of said Committee, of December 21st,

in relation to the southern terminus of the new Aqueduct, which has been laid over awaiting an opinion upon the subject asked by the Commissioner of Public Works from the Counsel to the Corporation, and of which opinion the Commissioner of Public Works now presents a copy.

The opinion was read and ordered placed upon file, and Commissioner SPENCER called for a vote upon the resolutions recommended by the Committee, as follows:

*Resolved*, That the point in the City of New York to which an additional supply of water shall be brought, under the direction of this Commission, be and the same is hereby fixed as the Central Park Reservoir, upon its northerly side, and that the southern terminus of the new Aqueduct is hereby located at the said northerly side of the said reservoir. . .

*Resolved*, That the Commissioner of Public Works be and he is hereby requested to prepare and submit as soon practicable plans, maps, specifications and estimates for a Gate House near One Hundred and Thirty-fifth street and Convent avenue, and for one at the Central Park Reservoir; also for a Conduit, or pipe lines, between said Gate Houses, and for furnishing an additional supply of water to distributing mains now existing or to be hereafter laid south of One Hundred and Thirty-fifth street and Convent avenue.

The resolutions were adopted by the affirmative vote of the Mayor, Comptroller, Commissioners Spencer, Dowd and Baldwin; the Commissioner of Public Works voting in the negative.

The Committee on Construction next called up their re-

port of January 6th, upon the taking of the lands of Jeremiah Mahoney, for additional dumping grounds at the Pocantico Cut and Blow-off, and recommending that the same be taken by agreement with him, as provided for in Section 23, Chapter 490, of the Laws of 1883, the consideration money for the property being the sum of twenty-two hundred and fifty dollars ($2,250), of which amount the contractors are to pay to said Mahoney the sum of two hundred and fifty dollars ($250) for the benefit such additional grounds, will be to them.

On motion of Commissioner SPENCER, the making of said agreement for the taking in fee of said lands and premises, containing $1\frac{71}{100}$ acres, for the sum of two thousand dollars ($2,000), was approved by the affirmative vote of the Mayor, Commissioner of Public Works, Commissioners Spencer, Dowd and Baldwin; the Comptroller voting in the negative.

And the Secretary was directed to submit said agreement to the Board of Estimate and Apportionment for its approval.

A letter was received from the Consulting Engineer, Mr. Joseph P. Davis, requesting leave of absence, without pay, for three months from February 1st, for reasons stated by him.

The leave of absence, without pay, was granted by the unanimous vote of the Commissioners.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, February 3, 1886, at 3 o'clock P. M.

---

Commissioners present:
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

Vice-President DOWD presided.

The minutes of the Special Meeting of January 28th were read and amended, and then approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1418 to 1451; which vouchers were, on motion of Commissioner BALDWIN, approved by the Commissioners, and ordered certified to the Comptroller for payment.

The Committee then made the following report:

"NEW YORK, February 3, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—At our request, Messrs. O'Brien & Clark, the successful bidders for Section No. 12, and Messrs. John Brunton & Co., for Sections Nos. 13 and 14, met this Committee to-day; and after conference with them, the Committee recommend the acceptance of Messrs. Roswell P. Flower, of the City of New York, and Thomas Cornell, of the City of Kingston, Ulster County, as sureties for Messrs. O'Brien & Clark, for Section No. 12, and of the American Surety Company, of the City of New York, incorporated under the laws of the State of New York, as the surety for Messrs. John Brunton & Co., for Sections Nos. 13 and 14.

Respectfully,

(Signed) WM. DOWD,
*Chairman.*"

The recommendation of the Committee was approved by the Board, and the contracts ordered to be executed with the above-named sureties thereon.

The Committee on Construction submitted the following report:

"NEW YORK, February 3, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—At your meeting of the 2d of December last, this Committee made report to you in relation to a request of Heman Clark, contractor upon Section B of the

new Aqueduct, for authority to sink an additional shaft, and recommended that said shaft be authorized, upon the condition that the contractor would secure from the owners of the land the necessary right to sink the shaft and dump the material therefrom, and that he would do all the work connected with, or incidental to, the sinking of said shaft, at a cost to the City of not exceeding $5,000; the shaft to be located at or near Station 232, upon Parcel No. 74 of the lands taken from Samuel T. Knapp, and that it be designated 'Shaft No. 19½,' and that the work be done under an agreement with the contractor similar to that for the sinking of Shaft No. 18½, at South Yonkers.

This recommendation was approved by you, and the shaft authorized upon the conditions above stated.

Since that time the progress of the work having developed, upon Parcels Nos. 74 and 75, material of such nature as to render it necessary to obtain a surface right, not only on Parcels Nos. 74 and 75, but also upon an additional parcel of land adjoining Parcel No. 74 on the west, and designated 'Parcel No. 74½,' as fully set forth in the resolution adopted at your meeting of January 4, 1886, directing an amendment of the proceedings, so as to acquire the fee in the above-named parcels, and this amendment of the proceedings having been consummated, and the City now in possession of the fee right in the above named parcels, we now recommend that the contractor on Section B be authorized to sink the additional shaft above-named, and to locate it at or about Station No. 245, upon Parcel No. 75; all the material from said shaft and the adjoining tunnel to be dumped upon the Parcel No. 74½, the work to be done under an agreement with the contractor, similar to the agreement for sinking Shaft No. 18½; the whole cost of the sinking of the said shaft, dumping of material,

clearing the debris from the surface where the shaft is sunk, and leaving the surrounding surface in as good order and condition as it now is, with all work incidental thereto; not to exceed the sum of $5,000, as provided for in Section 33 of the law.

Respectfully,

(Signed) JAMES C. SPENCER,

*Chairman.*"

On motion of Commissioner SPENCER, seconded by Commissioner BALDWIN, the recommendation of the Committee was approved by the Commissioners, and the Chief Engineer and Secretary directed to prepare the necessary specifications and agreement for the sinking of said Shaft No. 19½, and to submit the same to the Counsel to the Corporation for his approval.

Under date of January 30th, the Comptroller gave notice of the issue of warrants for vouchers not certified by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal for the New York sections of the new Aqueduct, and amounting to $521.78; which was ordered placed upon file and entered upon the books of this Commission.

The following communications, addressed to his Honor Mayor Grace, were transmitted by him to the Commissioners, and ordered placed upon file for future consideration:

1st. From D. O. Bradley, Esq., and other gentlemen of Tarrytown and its vicinity, dated January 30, 1886, with reference to an additional supply of water for the City of New York, to be obtained from the upper Hudson River

and its tributaries, in order to allow the cities and towns upon the route of the old Croton Aqueduct to be supplied therefrom, and requesting that the Aqueduct Commissioners cause surveys to be immediately made to determine the feasibility of the scheme.

2d. The report of a special committee of 21 members of the Union League Club of this city, upon the proposed Quaker Bridge Dam, dated January 30, 1886, and forwarded to the Mayor by William H. Webb, Esq., Chairman of said committee.

The Secretary submitted communications, dated January 29th and February 2d, from the Commissioners of Accounts of this city, transmitting forms prepared by them for keeping and rendering to them, by the contractors upon the new Aqueduct and the engineers of this Commission, of detailed reports of all accidents and the results thereof, occurring upon the work being done under the direction of this Commission, and quoting the provisions of law which, in the opinion of said Commissioners of Accounts, give them jurisdiction over such matters.

On motion of Commissioner SPENCER, the Secretary was directed to transmit copies of these communications to the Counsel to the Corporation, and to obtain his opinion upon the jurisdiction of the Commissioners of Accounts in the premises.

In response to the request of the Commissioners on the 13th January, Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works presented their views and reasons in favor of the construction of the Quaker Bridge Dam and Reservoir, and Chief Engi-

neer Church stated that his report on that subject would also be ready very shortly.

On motion of Commissioner DOWD, all these papers were ordered placed upon file, and the Secretary directed to have 1,000 copies thereof printed for public distribution and information.

On motion of Commissioner SPENCER, the Secretary was directed to have the following daily papers furnished for the use of the office of the Commissioners, viz., the *Herald*, *Tribune*, *Times*, *World*, *Star* and *Sun*.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, on Wednesday, February 10, 1886, at 3 o'clock P. M.

---

Commissioners present:

*The Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

Vice-President DOWD presided.

The minutes of Stated Meeting of February 3d were read and approved.

The Committee of Finance and Audit reported their examination and audit of the monthly estimates for work done by the contractors upon the new Aqueduct during the month of January, and included in vouchers Nos. 1452 to 1462, as follows:

| | | | |
|---|---|---|---|
| By Smith & Brown | Sec. 1 | | $11,629 |
| " Brown, Howard & Co. | " | 2 to 5 | 134,742 |
| " O'Brien & Clark | " | 6 to 9 | 130,672 |
| " Heman Clark | " | A to B | 64,452 |
| Total | | | $341,497 |

Also of bills included in vouchers Nos. 1463 to 1476.

On motion of Commissioner BALDWIN, all of the abo vouchers were approved by the Commissioners and order certified to the Comptroller for payment.

A communication was received from the Mayor, a dressed to him by Lewis G. Morris, Esq., in relation powder magazines upon the line of the new Aqueduc which was read and ordered placed upon file.

The Secretary presented a copy of the resolution of t Board of Estimate and Apportionment, approving agreement of the Aqueduct Commissioners with Jeremi Mahoney, for the taking in fee of lands and premis belonging to him; whereupon Commissioner SPENC offered the following resolution:

*Resolved*, That the President and Vice-President are he by authorized and requested, either one or the oth of them, on behalf of the Aqueduct Commissione to execute the agreement between the said Comm sioners and Jeremiah Mahoney, for the taking in f of the land and premises belonging to him at t Pocantico River Blow-off, in the Town of Mou Pleasant, Westchester County; containing about o and three quarter ($1\frac{3}{4}$) acres, for which the conside tion money is the sum of two thousand doll

($2,000); the making of the said agreement having been duly approved by the Board of Estimate and Apportionment on the 1st day of February, 1886, as required by Section 23, Chapter 490 of the Laws of 1883.

In compliance with the request of the Commissioners at their last meeting, the Counsel to the Corporation submitted his opinion adverse to the jurisdiction asserted by the Commissioners of Accounts, in relation to accidents upon the work on the new Aqueduct, now being done by contractors, under authority of this Commission.

The opinion was read and ordered placed on file, and the Secretary directed to transmit a copy thereof to the Commissioners of Accounts.

The Chief Engineer presented an opinion received by him from the Counsel to the Corporation upon the subject of changes in the method of timbering in the Aqueduct tunnels and certain allowances for excavation asked for by the contractors.

The opinion was read and the matter discussed, and, on motion of Commissioner BALDWIN, was laid over for further consideration.

The Chief Engineer next presented a request from the Division Engineers for an increase of their compensation, and recommended that such increase be made.

On motion of Commissioner BALDWIN, the matter was laid over for future consideration.

The Chief Engineer reported that he had succeeded in obtaining the services of Mr. William R. Hutton, C. E., to assist him during the temporary absence of Consulting Engineer Davis and the sickness of Deputy Chief Engineer Fteley, and at the same rate of compensation as that paid Mr. Davis, and that Mr. Hutton had entered upon the discharge of his duties on the 8th inst.

On motion of Commissioner SPENCER, this action of the Chief Engineer was approved by the Commissioners, and the temporary employment of Mr. Hutton authorized, with compensation at the rate of $6,000 per annum, dating from the 8th inst.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

NOTE.—Under date, February 12, 1886, the Counsel to the Corporation gave notice of the filing in the office of Register of the City and County of New York upon the 20th day of January, 1886, of the amended map (No. 1) covering Parcels 74 to 76½ in the Twenty-fourth Ward of this city, and the delivery to the Commissioners of Appraisal of the similar Maps 4, 5 and 6, upon the same day, which notice was this day received and placed upon file.

New York, February 13, 1886.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, February 17, 1886, at 3 o'clock P. M.

---

Commissioners present:

*The Mayor.*
*The Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of Stated Meeting of February 10th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers 1477 to 1499, and on motion of Commissioner DOWD the said vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

Commissioner SPENCER, as Chairman of the Committee on Construction, offered the following resolution:

*Resolved*, That that part of the new Croton Aqueduct, from the easterly side of the Harlem River, commencing at about Station 1490 + 63 of the survey of the route of said Aqueduct, and extending across and beneath the Harlem River to the Tenth avenue; and thence southwardly to One Hundred and Thirty-fifth street, comprising Sections 12, 13 and 14 of said Aqueduct; and also the extension of said Aqueduct from One Hundred and Thirty-fifth street southwardly to the Central Park either by conduit or pipe line, is hereby designated "Engineering Division No. 7," and the Chief Engineer is directed to place the work upon said division in charge of Division Engineer Edward Wegmann, Jr., who has been doing the preliminary work upon said division, in pursuance of the recommendation of the Chief Engineer, approved by the Commissioners December 3, 1884.

The resolution was unanimously adopted.

Under date of 13th inst. the Comptroller gave notice of the issue of warrants not certified by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal, viz.:

| | |
|---|---|
| City and County of New York: | |
| Award for land in Twenty-fourth Ward.. | $10,250 42 |
| Expenses | 200 00 |
| Westchester County: | |
| Rent and expenses | 653 79 |
| | $11,104 21 |

—which notice was ordered placed upon file and entered upon the books of this Commission.

The Secretary presented a communication from the Commissioners of Accounts in relation to accidents upon the the work on the new Aqueduct, which was read, and the Secretary instructed in relation thereto.

The Chief Engineer made report, dated February 17th, upon the condition of the various shafts and the appliances thereat for the safe performance of the work and protection of the workmen, and of the orders given by him to improve the same.

The report was read and ordered placed upon file.

Commissioner SPENCER then called up the matter of the masonry lining of the new Aqueduct, laid over from previous meetings.

The COMPTROLLER stated that, by the terms of the contracts, the Chief Engineer now has power to determine where masonry lining is required, and to order it to be done; and he therefore moved that the Chief Engineer be instructed to order masonry lining in the new Aqueduct only where the progress of the work developes material or conditions which, in the opinion of said Engineer, renders such lining essential for the safety or efficiency of the Aqueduct.

Commissioner SPENCER then offered, as an amendment to the motion of the Comptroller, "that the Chief Engineer be and he is hereby directed to order the new Aqueduct to be lined with masonry throughout its entire length."

Upon the amendment the vote was:

*In the affirmative—Commissioner of Public Works, Commissioners Spencer, Dowd and Baldwin.*

*In the negative—The Mayor and the Comptroller.*

Commissioner SPENCER then called up the matter of changes in the methods of timbering in the Aqueduct tunnels, and allowances asked by the contractors for certain excavations—which had also been laid over from former meetings.

An opinion upon these matters, asked by the Chief Engineer from the Counsel to the Corporation, was read, from which it appeared that no formal action by the Commissioners was required.

Therefore, the Chief Engineer was instructed to be governed by said opinion, and the Secretary directed to place it upon the files of the Commission.

The Commissioners then went into Executive Council.

Upon resuming the open session, the following resolution was unanimously adopted:

*Resolved*, That the Committee on Construction is hereby authorized and empowered to detail from the Engineer Corps of this Commission an Engineer, to be known as "Special Assistant Engineer," detailed to furnish information and evidence to the Counsel to the Corporation and other counsel representing the City before the several Commissioners of Appraisal in the matter of the adjustment of claims for lands and easements required for the new Croton Aqueduct, and for damages arising from or incident to its construction; and the said Committee on Construction is hereby requested to prepare and submit to the Commissioners, for their approval, such amendment of

the By-laws as this special detail may render necessary.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

NOTE.—Under date, February 17, 1886, the Counsel to the Corporation gave notice of the filing in the office of the Register of Westchester County upon the 16th day of January, 1886, of the amended map (No. 2), covering Parcels 74 to 76½, in the Twenty-fourth Ward of this City, which notice was this day received and placed upon file.

New York, February 19, 1886.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, February 24, 1886, at 3 o'clock P. M.

---

Commissioners present:

*The Mayor.*
*Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of Stated Meeting of February 17th were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1500 to 1521.

On motion of Commissioner DOWD the said vouchers were approved by the Commissioners, and ordered certified to the Comptroller for payment.

The COMPTROLLER, under date of 20th inst., gave notice of the issue of a warrant for voucher not certified by the Aqueduct Commissioners for stenographic services rendered to the Commissioners of Appraisal for Westchester County, and amounting to $384.20, which was ordered placed upon file and entered upon the books of this Commission.

A letter was received from the Commissioners of Appraisal for Westchester County, asking for the details of all agreements made by the Aqueduct Commissioners with owners of lands upon the route of the new Aqueduct, and the nature of the rights aquired by the City under said agreements, and on motion of Commissioner SPENCER the Secretary was directed to furnish the information asked for.

A request was made by O. B. Potter, Esq., for an extension of the time within which persons interested may present written arguments in opposition to the construction of the Quaker Bridge Dam, and on motion of Commissioner BALDWIN the time was extended until the first of April next.

The Secretary informed the Commissioners of a seeming defect in the property maps of the new Aqueduct route through Convent avenue, which might necessitate the shifting of Shaft 31 into One Hundred and Forty-first street and an amendment of the maps between One Hundred and Thirty-seventh and One Hundred and Forty-fifth streets.

On motion of Commissioner SPENCER, the Secretary and Chief Engineer were directed to confer with the Counsel

to the Corporation upon the subject, and act under his direction, and report to the Commissioners at their next meeting.

To facilitate the work of the contractors upon Sections 12, 13 and 14 of the new Aqueduct, the Commissioners, on motion of Commissioner SPENCER, authorized the Chief Engineer or Secretary to obtain from the respective departments of the City, such permits as may be required by law and City ordinances for the doing of certain kinds of work within the City limits.

Commissioner BALDWIN moved that the Commissioners reconsider the resolution adopted by the Commissioners at their last meeting, in relation to detailing an Engineer, as Special Assistant, to aid the Counsel of the City before the Commissioners of Appraisal, which motion was adopted unanimously.

Commissioner SPENCER then moved that the subject be referred to the Committee of Finance and Audit, which motion was adopted.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, March 3, 1886, at 3 o'clock P. M.

---

Commissioners present:

*The Mayor.*
*Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of Stated Meeting of February 24th were read and approved.

The Committee of Finance and Audit presented vouchers Nos. 1529 and 1530 for taxes on lands in Westchester County, and No. 1528, supplementary pay-roll for February; which vouchers, on motion of Commissioner BALDWIN, were approved by the Commissioners, and ordered certified to the Comptroller for payment.

The Committee asked an expression of the sense of the Commission in relation to the compensation of Deputy Chief Engineer Fteley, temporarily incapacitated by sickness, and Commissioner SPENCER offered the following resolution, which was adopted unanimously, viz.:

*Resolved*, That the Committee of Finance and Audit is hereby authorized, until otherwise ordered, to audit and certify for payment the monthly compensation of Deputy Chief Engineer Fteley, now confined by illness resulting from, and incident to, his work in this Commission.

The Committee made report adverse to the proposed assignment of an engineer as "Special Assistant" to assist counsel representing the City before the Commissioners of Appraisal; which report was read and ordered placed upon file.

The Committee next presented a report, dated March 1st, in relation to matters connected with the monthly estimates; which report, on motion of the COMPTROLLER, was laid over.

The Committee on Construction submitted a report made to them by the Chief Engineer in relation to a cave-in in the Aqueduct tunnel, beneath the lands of Cyrus W. Field, Esq., south of Shaft No. 13, with recommendation of the Committee and resolutions in relation thereto; all of which were read and discussed by the Commissioners, and action thereon deferred, with instructions to the Chief Engineer to confer with the Counsel to the Corporation upon the subject, and report to the Commissioners at their next Stated Meeting.

In connection with this matter, the Chief Engineer informed the Commissioners of an interview with Mr. Field, and his permission to enter upon his lands to do such work as may be necessary in connection with the cave-in.

The Secretary made report, of this date, regarding land of William H. De Forest, Esq., upon which Shaft 31 is located, and the arrangement agreed upon with him for the use of said land.

The report was read, and ordered placed upon file.

Commissioner SPENCER offered the following resolution:

*Resolved,* That the arrangement with William H. De Forest, Esq., for the use of land belonging to him upon the line of Convent avenue, between One Hundred and Fortieth and One Hundred and Forty-first streets, as set forth in the report of the Secretary this day submitted to us, be and the same is hereby approved and ratified by us, and the Secretary is directed to transmit to Mr. De Forest copies of said report and of this resolution, and to request his confirmation of the arrangement set forth in said report.

The resolution was adopted unanimously.

A communication was received from Engineer of Construction, H. S. Craven, declining to resign his office in compliance with an intimation from the Commissioners that his resignation would be acceptable to them, also making charges against the Chief Engineer of the Commission, and alleging that certain parts of the work upon the new Aqueduct is defective, and that undue allowances have been made to contractors.

The communication was read, and Commissioner BALDWIN offered, and the COMMISSIONER OF PUBLIC WORKS seconded, the following resolution:

*Resolved*, That H. S. Craven be and he is hereby removed from the office of the Engineer of Construction, to take effect March 4, 1886.

The resolution was adopted by the affirmative vote of the Mayor, the Comptroller, the Commissioner of Public Works and Commissioner Baldwin; Commissioner Spencer voting in the negative.

Commissioner BALDWIN next offered, and the COMPTROLLER seconded, the following resolution, which was adopted unanimously, viz.:

*Resolved*, That the communication of Engineer H. S. Craven be referred to a committee of three Engineers to be named by this Commission on Saturday next, who shall investigate the charges made therein by him, so far as the same relate to the efficiency of the engineering and proper construction of the work upon the new Aqueduct; and that Commissioners Loew and Baldwin be requested to present the names of Engineers to this Commission on Saturday next for their consideration, and when this Commission adjourns it adjourns to Saturday next, at 3 o'clock P. M.

A communication was received from Edwin E. Glaskin, reviewing the report of Chief Engineer Church upon the construction of the Quaker Bridge Dam, and refered to the Chief Engineer.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Saturday, March 6, 1886, at 3 o'clock P. M.

---

Commissioners present:

*The Mayor.*
*Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.
Also *Chief Engineer* CHURCH.

The minutes of Stated Meeting of the 3d inst. were read and approved.

Commissioner Dowd having been absent from the meeting of the 3d inst., stated that had he been present, he should have voted against the resolutions removing Engineer of Construction Craven, and wished to be so recorded, and the Commissioners directed that the vote of Commissioner Dowd be now recorded in the negative upon that resolution.

Commissioners LOEW and BALDWIN, pursuant to request of the Commissioners at their last meeting, stated that from amongst the eminent engineers who had expressed their willingness to serve as an Investigating Committee, they had deemed it advisable to recommend the selection of those who were most generally known to the New York public, and they therefore offered the following resolution, viz.:

*Resolved*, That Messrs. John Newton, George S. Greene and Q. A. Gilmore are hereby appointed a Commission of Engineers to investigate the charges made against the efficiency of the Chief Engineer of this Commission, and of imperfect work in the construction of the new Aqueduct, with full power to send for persons and papers, and to make their examination thorough and complete so far as the same relates to the engineering and construction of the work in question.

The resolution was unanimously adopted.

The Chief Engineer reported that in compliance with directions of the Commissioners at their last meeting, he had conferred with the Counsel to the Corporation, and had obtained, and now presented an opinion from him in relation to the matter of the cave-in upon the Aqueduct tunnel on the lands of Cyrus W. Field, Esq., south of Shaft No. 13.

The opinion was read, and as the counsel therein stated that "this opinion is based upon the state of facts hereinafter set forth. If there is any misconception of these facts on my part, attention should be called to it before

such opinion is acted on;" the Mayor asked the Chief Engineer whether the facts were correctly set forth by the counsel, in said opinion, and stated that he wished the answer made part of the record.

Chief Engineer Church replied that the facts were correctly set forth by the Counsel to the Corporation in the opinion just read.

Commissioner SPENCER then offered the following resolutions:

*Resolved*, That the Secretary is hereby directed to confer with Mr. Cyrus W. Field, and request his consent and agreement in writing with this Commission that the Aqueduct Commissioners may enter upon his lands, near to and south of Shaft No. 13, where there has been a settlement or cave-in from the surface towards the Aqueduct tunnel, and there excavate downwards from the surface as shall be necessary to secure the same from further settlement or caving, provided this Commission shall restore the surface to its original condition. The Secretary shall report progress, and any consent or agreement that Mr. Field will make in the premises, to the Committee on Construction, and the Committee of Finance and Audit is authorized to approve of and execute any such agreement on behalf of the Aqueduct Commissioners.

*Resolved*, That the Committee on Construction and the Chief Engineer are hereby authorized and directed, when advised that the consent of Mr. Cyrus W. Field has been obtained pursuant to the foregoing resolution to enter upon said premises, and under agreement

with the present contractors, or other competent persons, for doing the work pursuant to Section 33, Chapter 490, Laws of 1883, to make such excavations as shall be necessary to reach from the surface, the base of the caving portion thereof, into and over the Aqueduct tunnel at that point, and then and there secure the same at a cost and expense, and involving an expenditure not exceeding five thousand dollars; provided also, that the fissure can be closed and effectually secured for a distance of twenty feet on the line of the tunnel, beyond the present limit of the heading. That said work shall be under the direction and superintendence of the Chief Engineer, and the Commissioners hereby certify that in their opinion it is for the public interest that such work shall be so done, and our reasons for the same, are that in this way the work can be promptly and efficiently done, and the Aqueduct work promptly continued and progressed, and that the City of New York will be saved the payment of large damages to the owner of the land on the surface over and near the Aqueduct line, at the locality of the break or caving portion of said surface.

The resolutions were unanimously adopted.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, on Wednesday, March 10, 1886, at 3 o'clock P. M.

---

Commissioners present:

*The Comptroller.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Special Meeting of March 6th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 1542 to 1571; also of the monthly estimates for work done by the contractors during the month of February, included in vouchers 1531 to 1541, and amounting to $365,216.18, and on motion of Commissioner BALDWIN all of said vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

The Committee on Construction submitted communications from Division Engineer Wegmann and Chief Engineer Church, asking for additional office room for the Engineers of that Division, and recommending the leasing of the flat adjoining the one now occupied by the Division Engineer, at the rate of $35 per month, and for the same term as the lease of the latter office.

On motion of Commissioner SPENCER the matter was referred to the Committee on Construction, with power to lease said additional flat.

The Committee next submitted a recommendation of the Chief Engineer, that two Laborers be appointed on the Sixth Division, under Engineer Watkins.

On motion of Commissioner SPENCER, this matter was also referred to the Committee on Construction, with power.

Under date of March 6th the Comptroller gave notice of the issue of warrants for vouchers not approved by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal;

| | |
|---|---|
| For Westchester County Section | $669 64 |
| For New York " " | 262 50 |

—which notice was ordered placed upon file and entered upon the books of this Commission.

The Secretary presented a letter of this date from Mr. William H. De Forest, confirming the agreement for the use of his lands on the line of Convent avenue, between One Hundred and Fortieth and One Hundred and Forty-

first streets, as set forth in the report of the Secretary of March 3d, and ratified by the Commissioners at their meeting of that date, which letter was ordered placed upon file, and notice to be given to the contractors to erect the fences upon said lands, as required by said agreement.

Mr. John H. Timmerman, Auditor of the Commission, tendered his resignation of that position, to take effect at the pleasure of the Commissioners.

On motion of Commissioner BALDWIN, the resignation was laid on the table.

A request was received from A. C. Chenoweth, Transitman, now on the Seventh Division, that he be given charge of the portion of the work on the new Aqueduct south of One Hundred and Thirty-fifth street.

On motion of Commissioner BALDWIN, the request was referred to the Committee on Construction.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, March 17, 1886.

---

The Commissioners assembled at 2 o'clock P. M., to meet the Civil Engineers appointed at the meeting of the 6th inst. to investigate the charges pending against the efficiency of the Chief Engineer of the Commission, and the character of the work upon the new Aqueduct.

Present:

*The Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.
And *Engineers* NEWTON, GREENE and GILMORE.

The Commissioners held a conference with the Engineers as to the mode of procedure to be followed in making their investigation, and it was decided to leave the matter entirely to the discretion of the said Engineers, with full power in the premises.

At 3 o'clock the regular order of business was taken up, and, pending the arrival of the Mayor, Vice-President DOWD presided.

The minutes of the Stated Meeting of March 10th were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers 1572 to 1589, which vouchers, on motion of Commissioner BALDWIN were approved, and ordered certified to the Comptroller for payment.

The Committee also reported their direction to the Purveyor to sell one of the horses at the stable of the Engineers' Headquarters at Tarrytown, the horse being no longer serviceable for the work.

The Committee on Construction made the following report:

"NEW YORK, March 13, 1886.

*To the Aqueduct Commissioners:*

Agreeably to your direction at your meeting of Wednesday, March 10th, the Committee on Construction report that it has selected and appointed Arthur Beattie and John Surrigan as Laborers and ordered them to report to Division Engineer Watkins for duty on the Sixth Division on Monday, March 15, 1886.

(Signed) JAMES C. SPENCER,
*Chairman.*"

On motion of Commissioner BALDWIN, the above action of the Committee was approved by the Commissioners,

and the persons therein named ordered placed upon the pay-roll of Division Six, from the date of their commencement of work.

The Comptroller gave notice, under date of March 13th, of the issue of warrants for vouchers not approved by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal, for

| | |
|---|---|
| New York Section | $450 00 |
| Westchester Section | 487 79 |
| | $937 79 |

—which notice was ordered placed upon file and entered upon the books of this Commission.

The Secretary submitted an opinion from the Counsel to the Corporation, in relation to the removal of an air-box on Section 2 at Croton Dam, referred to in the report of the Committee on Construction, and laid over at the meeting of the Commissioners on January 28th to await the receipt of this opinion.

The opinion was read and ordered placed upon file, further action in the premises by the Commissioners being unnecessary.

The Secretary presented the application of Mr. J. C. Lulley for the position of Auditor of this Commission, which was read and laid over.

The Commission of Engineers requested that the Aqueduct Commissioners would authorize the Secretary to prepare and present to said Engineers detailed specifications of the charges which they are to investigate, with a list of

the witnesses for each specification, and that all records relating to the investigation be laid before them.

On motion of the COMPTROLLER, the Secretary was directed to prepare the specifications and list asked for, and to lay before the said Engineers all records relating to or connected with the subject of said charges.

The MAYOR then appeared, and thereafter presided.

Commissioner SPENCER moved the reconsideration of the resolution adopted March 6th, appointing the Engineers to make certain investigations, which motion was adopted.

Commissioner SPENCER then offered the following resolution, which was unanimously adopted:

*Resolved*, That Messrs. John Newton, George S. Greene and Q. A. Gilmore, Civil Engineers, are hereby appointed to investigate the charges made against the efficiency of the Chief Engineer of this Commission, and of imperfect work in the construction of the new Aqueduct, with full power to send for persons and papers and to make their examination thorough and complete so far as the same relates to the engineering and construction of the work in question, and report to the Aqueduct Commissioners.

Commissioner BALDWIN then offered the following resolution:

*Resolved*, That the Board of Engineers be requested, when the charges have been submitted, to hear all necessary statements and make all necessary examination of the work in person, at the earliest time practicable, leav-

ing to them all the details as to the manner of conducting the said examination.

The resolution was adopted unanimously.

Commissioner SPENCER moved that the Secretary be authorized to employ a stenographer to report the testimony to be taken before the Commission of Engineers investigating the charges against the Chief Engineer, and the work upon the new Aqueduct, which motion was adopted unanimously.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, March 24, 1886, at 3 o'clock P. M.

---

Commissioners present:

*The Mayor.*
*Comptroller.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church; and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of March 17th were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1591 to 1605, and on motion of Commissioner DOWD, said vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

The Committee on Construction made report, dated March 22d, of the completion of an agreement with Mr. Cyrus W. Field for use of his land south of Shaft 13, for the purpose of arresting and repairing the cave-in at that place, and submitting the form of an agreement prepared under the direction of said Committee pursuant to the resolution of the Commissioners of March 6, 1886, for the performance of the required work, by Messrs. O'Brien & Clark, and recommending that said agreement be immediately executed.

The agreement was read, and Commissioner SPENCER moved that the Secretary be directed to have said agreement immediately approved, as to form, by the Counsel to the Corporation, and executed by O'Brien & Clark and the Aqueduct Commissioners, and one of the originals filed with the Comptroller, together with the certificate required by Section 33, Chapter 490, of the Laws of 1883.

The motion was adopted unanimously.

The Committee next submitted a request from the Chief Engineer for the appointment of another Laborer, required on the 5th Division, and recommending the appointment of George C. Glatz, with compensation at the rate of two dollars ($2) per day.

This recommendation was approved by the Commissioners and the appointment made.

The Chairman of said Committee stated that, as authorized by the Commissioners, the flat at 267 West One Hundred and Twenty-fifth street had been leased for the use of the engineers, and offered the following resolution:

*Resolved*, That the President and Vice-President of this Commission are hereby authorized and requested, either one or the other of them, on behalf of the Commissioners, to execute a lease from David W. Bishop of the flat known as "the 1st Flat," in the building No. 267 West One Hundred and Twenty-fifth street, in the City of New York, for the term of two (2) years from the 1st of May next, at the rate of four hundred and twenty dollars ($420) per annum; the same being for the use of the Engineers on Division No. 7 of the new Aqueduct, on Manhattan Island.

The resolution was adopted.

The Comptroller, under date of March 20, 1886, gave notice of the issue of warrants for vouchers not certified by the Aqueduct Commissioners, for compensation to the Commissioners of Appraisal, for New York County $2,250, which notice was ordered placed on file, and entered upon the books of this Commission.

The Chief Engineer presented a letter, dated March 24th, stating that Mr. H. S. Craven, late Engineer of Construction, has removed from the office at Tarrytown, and refused to return certain books and papers forming part of the official records of that office.

The matter was referred to Commissioner Spencer for investigation and adjustment.

A communication was received from Oliver W. Barnes, Esq., Civil Engineer, dated March 24, 1886, submitting plans for a curved dam at the Quaker Bridge, and stating his views of the advantages of such a form for that dam.

On motion of Commissioner SPENCER, the letter and plans of Mr. Barnes were referred to the Chief Engineer for consideration and report.

Commissioner SPENCER called from the table the resignation of Auditor Timmerman, and moved that it be accepted, to take effect from the 31st inst.

The motion was accepted.

Commissioner SPENCER next moved that Mr. Julius C. Lulley be appointed Auditor of this Commission, to take effect on the 1st of April next.

This motion was adopted unanimously.

Commissioner DOWD then moved that on and after the 1st of April next, the compensation of the Purveyor and Property Clerk of the Commissioners be fixed at the rate of two thousand dollars ($2,000) per annum.

This motion was adopted unanimously.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

NOTE.—On Wednesday, March 31, 1886, at the regular hour of meeting, Commissioners Spencer, Dowd and Baldwin attended; and at 4 o'clock P. M., no quorum being present, the Stated Meeting was adjourned until Wednesday next, April 7, 1886, at 3 o'clock P.M.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, April 7, 1886, at 3 o'clock P. M.

---

Present:

*The Comptroller.*
*Commissioner of Public Works.*
*Commissioners* SPENCER and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

In the absence of the President and Vice-President, Commissioner SPENCER was selected to preside.

The minutes of the Stated Meeting of March 24th were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1613 and 1614, also of monthly estimates for work done during the month of March, included in vouchers Nos. 1615 to 1632, and amounting to $336,485.89.

On motion of Commissioner BALDWIN, all of said vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

The Committee on Construction made three reports, as follows:

1st. Dated March 30, 1886, submitting a report from the Chief Engineer in relation to the construction of a temporary sewer around Shaft No. 29, in Tenth avenue, near One Hundred and Fifty-seventh street, and recommending that the work be done by John Brunton & Co., at a cost of not to exceed $600.

Commissioner BALDWIN offered the following resolution:

*Resolved*, That the Committee on Construction be and they are hereby authorized and empowered to employ John Brunton & Co. to construct a temporary sewer around the excavation of Shaft No. 29, in Tenth avenue, near One Hundred and Fifty-seventh street, and to maintain the same until a permanent sewer can be built in the masonry side-walls of said shaft, the said work to be done at an expense of not exceeding six hundred dollars ($600), and pursuant to the provisions of Section 33, Chapter 490, of the Laws of 1883.

This motion was seconded by the COMMISSIONER OF PUBLIC WORKS, and adopted unanimously.

2d. Dated April 7, 1886, submitting and approving a request of the Chief Engineer for an appropriation of $1,500 for instruments and office furniture for the engineers of Division No. 7, in this city.

On motion of Commissioner BALDWIN, the sum of $1,250 was appropriated for the purchase of transits, levels and other instruments enumerated in the report of the Chief Engineer of April 5th, and the sum of $250 for additional office furniture, all of the same being for the use of the engineers of Division No. 7.

3d. Dated April 7, 1886. Report in relation to the construction of a dock and filling in the dumping ground beyond the water line at the Harlem River crossing of the new Croton Aqueduct; the same to be done in the manner required by the Commissioners of the Department of Docks, and under permits to be obtained from them.

The report gave the details of the work, and the reasons for doing it, and was accompanied by a diagram showing the location of the proposed dock, and the lands to be filled in.

Commissioner SPENCER offered the following resolution:

*Resolved*, That the Committee on Construction are hereby authorized to obtain from the Department of Docks permission to construct a dock at the westerly side of the Harlem River crossing of the new Croton Aqueduct, said dock to be of the width of one hundred feet, and to extend out to the bulkhead line established at that place by the United States surveys; also to obtain and report to this Commission all necessary information as to the manner and cost of building said dock.

The resolution was adopted by the affirmative vote of all the Commissioners present.

Commissioner SPENCER next offered the following resolution:

*Resolved*, That the matter of filling in upon the lands upon the westerly bank of the Harlem River, north of High Bridge Park, lately acquired by the City for the construction of the new Croton Aqueduct and its appurtenances, and described upon the property maps filed in the office of the Register of the City and County of New York, on the 28th day of August, 1885, as Parcels No. 1 to 6, inclusive, be and the same is hereby referred to the Committee on Construction, with power to obtain from the Commissioners of the Department of Docks the necessary permits for dredging, riprapping and filling beyond the shore line upon said parcels of land, and subject to the approval of this Commission, and pursuant to the provisions of Section 33, Chapter 490, of the Laws of 1883, to contract with suitable persons for the necessary dredging upon said parcels of land.

This resolution was adopted unanimously.

The Chief Engineer submitted a communication, dated 7th inst., in relation to the investigation of charges against him, and asking for the fullest investigation of all charges that have been or may be presented.

A communication was also received, dated the 1st inst., from Henry Macdona, Esq., counsel of Mr. H. S. Craven, asking further investigation of charges made or to be made by the latter against the Chief Engineer, and the character of the work upon the new Aqueduct.

Both communications were read, and Mr. Macdona was heard in relation thereto, and on motion of Commissioner BALDWIN the following resolution was unanimously adopted, and directed to be transmitted to the Examining Engineers now investigating the charges referred to:

*Resolved*, That the written request of the Chief Engineer and the counsel of Mr. Craven be referred to the Committee of Engineers, with the request of the Commissioners to examine fully in regard to any charges that have been or shall be made against the Chief Engineer in regard to any engineering work upon the Aqueduct.

Notice was received from the Board of Estimate and Apportionment of the revocation, on the 5th inst., of their approval of the agreement between the Aqueduct Commissioners and the New York Life Insurance Company for lands in the Town of Greenburg, Westchester County, taken for the new Croton Aqueduct, and their subsequent disapproval of said agreement.

On motion of Commissioner SPENCER, the matter was referred to the Committee of Finance and Audit.

Notice was presented of a lien of James Lunny, amounting to the sum of $112, with interest from January 1, 1886, for materials alleged to have been furnished for the construction of that part of the new Croton Aqueduct under contract with O'Brien & Clark, said notice being dated April 3, 1886.

On motion of the COMPTROLLER, the matter was referred to the Committee of Finance and Audit.

A communication was received, dated April 2, 1886, and addressed to his Honor Mayor Grace, from Duncan Smith, Esq., President of the Board of Education of the City of Yonkers, in relation to the exposure to injury from explosives in use upon the new Aqueduct work of a certain schoolhouse and its inmates in the said city, and requesting that immediate measures be taken to have said explosives removed and safely stored.

On motion of the COMPTROLLER, the matter was referred to the Chief Engineer for conference with contractors O'Brien & Clark, and necessary action in the premises.

A letter was presented, dated March 25th, from the Counsel to the Corporation, in relation to evidence to be given on behalf of the City in cases now pending before the Commissioners of Appraisal for Westchester County.

The letter was read, and the Secretary directed to confer with the said Counsel upon the subject, and report to the Commissioners at their next meeting.

A remonstrance was received from August Belmont, Esq., President of the American Jockey Club, against taking of lands in Jerome Park for the construction of a new reservoir north of the Harlem River. It was read and ordered placed upon file for future consideration.

Communications were received from Messrs. O. B. Potter, William H. Webb and others in opposition to the construction of the proposed Quaker Bridge Dam, and placed upon file, and upon request of Mr. Potter the time

for receiving similar communications was extended to the 30th inst.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

NOTE.—On Wednesday, April 14, 1886, at the regular hour of meeting, Commissioners Spencer and Baldwin attended; and at 4 o'clock P. M., no quorum being present, the Stated Meeting was adjourned until Wednesday, April 21, 1886, at 3 o'clock P. M.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, April 21, 1886, at 3 o'clock P. M.

---

Present:

*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church; and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

Vice-President DOWD presided.

The minutes of the Stated Meeting of April 7th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 1633 to 1650, and on motion of Commissioner BALDWIN said vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

The Committee next made report upon the claim of Joseph P. Disbrow, for damage to his dwelling and compensation for the easement right for the new Aqueduct through his lands.

The report was read, and the Commissioners being informed that the counsel of Mr. Disbrow desired a hearing by them, action upon the report was deferred until the next Stated Meeting.

The Committee on Construction made report, dated April 20th, submitting a request from Heman Clark, contractor upon Section A of the new Aqueduct, for an additional shaft upon said section near Kingsbridge road; which was accompanied by the recommendation of the Chief Engineer that the request be granted.

In this recommendation the Committee concurred, provided the contractor, at his own expense, will procure from the owner of the lands the right to sink said shaft, and to dump the debris taken therefrom, and will sink, securely close and refill said shaft, and do all work incidental thereto, at a cost to the City not exceeding $5,000.

Whereupon Commissioner SPENCER offered the following resolutions, viz.:

*Resolved*, That the request of Heman Clark, contractor upon Section A of the new Croton Aqueduct in the Twenty-fourth Ward of this city, for authority to sink an additional shaft upon said section be granted, and the sinking of said shaft is hereby authorized upon the following conditions, viz.: that it be located

at Monument No. 20, on the lands of Nathaniel P. Bailey, near Kingsbridge road; that the said contractor at his own cost shall procure from the owner of said lands the right to sink said shaft thereon, and shall provide, at his own cost, dumping grounds for the material taken from said shaft and the adjoining tunnel, and that he will sink, maintain, securely close with masonry and refill said shaft, and do all work incidental thereto, under the direction and to the satisfaction of the Chief Engineer of this Commission, at a cost to the City of not exceeding the sum of five thousand dollars ($5,000).

*Resolved*, That said shaft be designated "Shaft 21½," and that the work be done under the provisions of Section 33, Chapter 490, of the Laws of 1883, and by an agreement similar to that for sinking Shaft 19½, to be approved by the Counsel to the Corporation.

These resolutions were adopted by the affirmative vote of all the Commissioners present, and the Secretary and Chief Engineer directed to prepare and submit a form of agreement and specifications for the work at said shaft.

The Comptroller, under date of April 10th, gave notice of the issue of a warrant for a voucher not certified by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal for New York City and County, for the sum of $1,000; which notice was ordered placed upon file and duly entered upon the books of this Commission.

The Secretary reported (verbally) that, in compliance with the direction of the Commissioners, he had conferred

with the Counsel to the Corporation, in response to his letter of March 25th, in relation to furnishing witnesses on behalf of the City, in cases pending before the Commissioners of Appraisal for Westchester County, and that an adjournment of the hearing in these cases would be obtained until such time as witnesses could be furnished by the Aqueduct Commissioners.

A communication, dated April 14, 1886, was received from Lewis Balch, M. D., Secretary of the State Board of Health of New York, with regard to a recent case of smallpox at Shaft No. 3, in the Town of New Castle, in Westchester County, recommending measures for the prevention of other cases, and suggesting that, if within their province, orders be given by the Aqueduct Commissioners to enforce vaccination of all unvaccinated men upon the work.

Upon full consideration the Commissioners were of opinion that they had no authority to issue or power to enforce such orders; but that the contractors should take all possible means to conform to and carry out the directions of the State Board of Health.

Commissioner SQUIRE then offered the following resolutions, which were unanimously adopted:

*Resolved*, That the Aqueduct Commissioners hereby urgently request the contractors on the work upon the new Aqueduct to take every possible precaution to guard against the introduction of men who have been exposed to contagious disease, and that they conform to and carry out, as far as in their power lies, the recent recommendations and directions of the State

and local Boards of Health, for the suppression and prevention of smallpox.

*Resolved*, That the Secretary is hereby directed to transmit to each of the contractors a copy of the letter from the Secretary of the State Board of Health, and of the above resolution of the Commissioners.

A letter was received from Fordham Morris, Esq , of counsel for Mrs. Janet Sanford, requesting the Aqueduct Commissioners to take in fee, by agreement with the owner, an additional parcel of land at the dumping ground of Shaft 19, in the City of Yonkers.

On motion of Commissioner SPENCER, the matter was referred to the Chief Engineer for investigation and report whether such additional land was required, or could be advantageously used for the construction of the new Aqueduct.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, April 28, 1886, at 3 o'clock P. M.

---

Present:

*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.
Also Chief Engineer Church, Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

Vice-President DOWD presided.

The minutes of the Stated Meeting of April 21st were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1651 to 1663, which vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

The Comptroller, under date of 24th inst., gave notice of the issue of warrants for vouchers not certified by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal for

| | |
|---|---|
| New York County | $234 90 |
| Westchester County | 185 17 |

which notice was ordered to be placed upon file and entered upon the books of this Commission.

A communication was presented from the Commissioner of Public Works, dated April 27, 1886, transmitting the following exhibits, viz.:

Exhibits FF, being the six similar property maps of the lands required for the construction of the dams and double Reservoir I on the east branch of the Croton River, in the Town of Southeast, in Putnam County, New York, said maps having been prepared by him in compliance with the request of the Aqueduct Commissioners, by resolution of January 27, 1886.

Exhibits II, being the six similar property maps of the lands required for the construction of the new gate house at One Hundred and Thirty-fifth street and Convent avenue, in the Twelfth Ward of this city, also prepared by him in part compliance with the requests of the Aqueduct Commissioners, by resolution of January 28, 1886.

On motion of Commissioner BALDWIN, the aforesaid communication and exhibits were referred to the Committee on Construction and Chief Engineer for examination and report.

A communication of this date in relation to the employment of counsel was received from Messrs. Greene, Newton

and Gilmore, Examining Engineers, now investigating certain charges made against the Chief Engineer of this Commission.

The communication was read and the matter discussed by the Commissioners, and, on motion of Commissioner BALDWIN, the Secretary was directed to notify the said Engineers that if they required or desired it counsel would be furnished them by the Aqueduct Commissioners whenever so requested.

The Secretary and Chief Engineer presented the form of an agreement and specifications for constructing an additional shaft on Section A of the new Aqueduct, prepared by them, in compliance with the directions of the Commissioners at their meeting of the 21st inst., which form had been submitted to and approved by the Counsel to the Corporation.

On motion of Commissioner SPENCER, said form was adopted by the Commissioners, and the Secretary was directed to have the same engrossed for execution, and also to prepare for execution by the Commissioners and filing with the Comptroller the certificate required by Section 33 of the act.

The Secretary made verbal report in relation to the lands upon Convent avenue, between One Hundred and Thirty-seventh and One Hundred and Forty-fifth streets, upon which the City has yet to acquire the right to construct the new Aqueduct; and, on motion of Commissioner DOWD, the matter was referred to the Committee on Construction for consideration and report.

The Report of the Committee of Finance and Audit upon the claim of Joseph P. Disbrow, Esq., for damages to his property in the Twenty-fourth Ward, etc., which was laid over from the last meeting, was then taken up, and Mr. Fordham Morris, of counsel, was heard in relation thereto.

The Commissioners decided that until a full attendance of the Board could be obtained action should be deferred upon those portions of said report which relate to Mr. Disbrow's claim for the loss of occupancy of his dwelling and the consequent increase of his expenses, and as to the compensation to be made to him for the easement upon his lands. But, he being willing to accept the amount fixed by the aforesaid Committee as the cost of repairing the dwelling, it was, on motion of Commissioner SPENCER,

*Resolved*, That the sum of twelve hundred dollars ($1,200) be and the same is hereby awarded to Joseph P. Disbrow as compensation for the damages done to his dwelling house by blasting in the Aqueduct tunnel through his lands in the Twenty-fourth Ward of this city, and that said amount be certified to the Comptroller for payment to said Disbrow; it being understood that his acceptance thereof is without prejudice to his rights as to other matters for which he claims compensation.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, on Wednesday, May 5, 1886, at 3 o'clock P. M.

---

Present:

*The Mayor.*
*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of April 28th were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1670 to 1688, and on motion of Commissioner DOWD the said vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

The Committee then presented a report, dated April 27th, in relation to the lands taken from the New York Life In-

334903

surance Company for the new Aqueduct, at Ardsley, in Westchester County, the compensation for which lands had been agreed upon between the Aqueduct Commissioners and said company, but the agreement disapproved by the Board of Estimate and Apportionment.

The report was read, and upon motion of Commissioner SPENCER the report, and all other papers relating to the case, were ordered placed upon file for future reference, the Secretary directed to transmit a copy of the report to the Board of Estimate and Apportionment, and the Committee discharged from further consideration of the matter.

The Committee on Construction made reports as follows:

FIRST.—Under date of May 3d, concurring in the recommendation of the Chief Engineer that the request of Division Engineer Alfred Craven that he be permitted to use for his family the unoccupied portions of the building used by the engineers of Division No. 4 at Ardsley, be granted until the same may be required by the Commissioners for other uses, and on motion of Commissioner SPENCER the request was granted, such use to continue during the pleasure of the Board.

SECOND.—Dated May 5th, in relation to the work on Section 12 of the new Aqueduct at the Harlem River crossing, and adjacent thereto, and of some proposed changes in the mode of connecting the old and the new system of water supply at that place.

After hearing the views of Chief Engineer Birdsall of the Department of Public Works and Chief Engineer

Church, action upon the report was deferred to afford an opportunity for all of the Commissioners to make personal examination of the grounds before acting upon the matter.

THIRD.—A report dated May 5th, upon the matters embraced in the communication of the Commissioner of Public Works, under date of April 27, 1886, as follows:

*First.*—Upon the six similar property maps of the lands required for the construction of the double Reservoir I, in the Town of Southeast, Putnam County, New York, being Exhibits FF, prepared by said Commissioner in accordance with Section 4, Chapter 490, of the Laws of 1883, the Committee recommending the adoption of the following resolutions:

*Resolved*, That the six similar maps of the property required for the double Reservoir I, in the Town of Southeast, Putnam County, New York, being Exhibit FF, submitted to the Aqueduct Commissioners by the Commissioner of Public Works, under date of April 27, 1886, be and the same are hereby adopted by the Aqueduct Commissioners; and the same shall be transmitted to the Counsel to the Corporation with a certificate of such approval written thereon, and signed by the Aqueduct Commissioners adopting said maps; No. 1 of said maps to be filed in the office of the Clerk of Putnam County, No. 2 thereof to be filed in the office of the Register of the City and County of New York, and Nos. 4, 5 and 6 thereof to be delivered to the Commissioners of Appraisal, as required by the statute; and the said Counsel is hereby requested to take, at as early day as practicable, the required

proceedings for the appointment of the said Commissioners of Appraisal.

*Resolved*, That the said double Reservoir I shall be named and hereafter known in the records and maps of the Aqueduct Commissioners as "The East Branch Reservoir."

The resolutions were adopted by the affirmative vote of all the Commissioners present.

*Second.*—Upon the six similar property maps for the lands required for the new gate house on Convent avenue, near One Hundred and Thirty-fifth street, in the Twelfth Ward of this city, said maps being Exhibits II, also prepared by said Commissioner of Public Works, as required by the statute, the Committee recommending the adoption of the following resolution:

*Resolved*, That the six similar maps of the property required at One Hundred and Thirty-fifth street and Convent avenue, in the City of New York, for building a gate house with the necessary chambers and connections for the new Croton Aqueduct, and for the present Croton Aqueduct, being Exhibits II, submitted to the Aqueduct Commissioners by the Commissioner of Public Works, under date of April 27, 1886, be and the same are hereby adopted by the Aqueduct Commissioners, and the same shall be transmitted to the Counsel to the Corporation, with a certificate of such approval signed by the Aqueduct Commissioners adopting said maps; the said maps to be filed and furnished to the Commissioners of Appraisal, as required by the statute; and the said Counsel to the Corporation is

hereby requested to take, at as early day as practicable, the required proceedings for the acquirement of the lands described upon said maps.

This resolution was also adopted by the affirmative vote of all the Commissioners present.

*Third.*—In relation to the southern terminus of the new Croton Aqueduct; to the construction of a new gate house in Central Park; and to the conduit, or pipe lines, between said gate house and the new gate house at One Hundred and Thirty fifth street and Convent avenue; the Committee recommending the adoption of the resolutions hereinafter set forth.

Commissioner SPENCER moved a reconsideration of the following resolution, adopted by the Commissioners at their meeting of January 28, 1886, viz.:

*Resolved*, That the point in the City of New York to which an additional supply of water shall be brought, under the direction of this Commission, be and the same is hereby fixed as the Central Park Reservoir, upon its northerly side, and that the southern terminus of the new Aqueduct is hereby located at the said northerly side of the said reservoir.

*Resolved*, That the Commissioner of Public Works be and he is hereby requested to prepare and submit, as soon as practicable, plans, maps, specifications and estimates for a gate house near One Hundred and Thirty-fifth street and Convent avenue, and for one at the Central Park Reservoir; also for a conduit, or pipe lines, between said gate houses, and for furnishing an

additional supply of water to distributing mains now existing or to be hereafter laid, south of One Hundred and Thirty fifth street and Convent avenue.

The motion was carried unanimously.

Commissioner SPENCER then moved the adoption of the resolutions recommended by the Committee, as following:

*Resolved*, That the point in the City of New York to which an additional supply of water shall be brought, under the direction of this Commission, be and the same is hereby fixed at a point on the northerly side of the Reservoir in Central Park (known as the New Reservoir) and adjacent thereto; which point is hereby located as the southern terminus of the new Aqueduct.

*Resolved*, That the Commissioner of Public Works be and he is hereby requested and directed to prepare and submit to the Aqueduct Commissioners, at the earliest day practicable, plans, maps, specifications and estimates for a gate house, with all needful chambers and connections, at or near One Hundred and Thirty-fifth street and Convent avenue, and also for a gate house, with all needful chambers and connections, at a point on the northerly side of the Central Park New Reservoir, and adjacent thereto, for the termination of the new Aqueduct, and to which an additional supply of water may be brought, under the direction of this Commission, and hereafter supplied to said Reservoir.

*Resolved*, That the Commissioner of Public Works be and he is hereby requested and directed to prepare and

submit to the Aqueduct Commissioners, at the earliest day practicable, plans, maps, specifications and estimates for a conduit, or pipe lines, between the said gate houses mentioned in the foregoing resolution, with such provision as said Commissioner may deem advisable for the making hereafter by the Department of Public Works of all needful connections with distributing mains now existing, or that may hereafter be required and laid at any point or points south of One Hundred and Thirty-fifth street and Convent avenue, through which an additional supply of water may be brought to the connections with said distributing mains and to the gate house at the southern terminus of the new Aqueduct, and hereafter furnished and supplied to the aforesaid Central Park New Reservoir; the line or route of said conduit or pipe lines to be as follows:

So much of the line or route laid down upon the general plan thereof submitted to this Commission by the Commissioner of Public Works on the 14th day of of January, 1885, as is thus described:

Beginning at the gate house shown upon said general plan, at or near One Hundred and Thirty-fifth street and Convent avenue, and thence running through and along Convent avenue southwardly to its intersection with Ninth avenue; thence southwardly through and along Ninth avenue and along the eastwardly side of Morningside Park and through and along the new street known as "Manhattan avenue" to the intersection of said avenue with One Hundred and Sixth street; thence eastwardly through and along One Hundred and Sixth street to Eighth avenue; thence southwardly through and along Eighth avenue

to a point between One Hundred and First and One Hundred and Second streets. And from the last mentioned point the said line or route of said conduit or pipe lines to be modified from that laid down upon the aforesaid general plan, in the manner set forth in the resolution adopted by the Aqueduct Commissioners at their meeting of the 1st of July, 1885, which modification is described as follows, viz.: Extending said conduit or pipe lines southwardly through and along Eighth avenue to Ninety-seventh street; thence eastwardly through and along the Transverse road in Central Park opposite Ninety-seventh street; and thence through Central Park to the above-named gate house upon the northerly side of the Central Park New Reservoir.

The resolutions were adopted by the affirmative vote of the Mayor and Commissioners Spencer, Dowd and Baldwin; the Commissioner of Public Works not voting.

The Comptroller gave notice, under date of May 1st, of the issue of warrants for vouchers not certified by the Aqueduct Commissioners, being for fees and expenses allowed to counsel in cases pending before the Commissioners of Appraisal for the City and County of New York, amounting to the sum of $2,354.85, which notice was ordered placed upon file and entered upon the books of this Commission.

The Chief Engineer presented a statement of the estimates for work done by the contractors on the new Aqueduct during the month of April, amounting in all to the sum of $317,331.72.

The Chief Engineer made report, dated May 3d, in re-

lation to an additional parcel of land at Shaft 19, owned by Mrs. Janet Sanford, and recommending that it be acquired if the whole property could be obtained at a price named by him.

The report was read, and Mr. Fordham Morris, of counsel for Mrs. Sandford, being present, was heard upon the subject, and asked for time to confer with his client. Action on the report was therefore deferred.

A complaint, dated April 26th, was received from Madame Hoey, on behalf of the Academy of the Sacred Heart, as to the manner of doing the work, and use of the property of that institution, at and near Shaft 32, on Convent avenue.

The matters complained of having been fully investigated since that date by the Division Engineer in charge of the work, and understood to have been satisfactorily arranged by him, as set forth in his report thereon, the Secretary was directed to transmit a copy of said report to the counsel of the Academy, and the Chief Engineer instructed to direct and enforce the performance by the contractor of the work described in the said Division Engineer's report.

The Commissioners resumed consideration of the report of the Committee of Finance and Audit upon the claims of Mr. Joseph P. Disbrow, and Mr. Fordham Morris, of counsel, was heard in relation to said claims.

On motion of Commissioner SPENCER, the Secretary was then directed to confer with the Counsel to the Corpora-

tion upon certain specified points, and to report thereon at the next meeting; and, until then, further action upon the report of the Committee was deferred.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, May 12, 1886, at 3 o'clock P. M.

---

Present:

*The Mayor.*
*The Comptroller.*
*The Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD and BALDWIN.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of May 5th were read and approved.

The Committee of Finance and Audit reported their examination and audit of the monthly estimates for work done by the contractors upon the new Aqueduct during the month of April, included in vouchers Nos. 1689 to 1702, and amounting to $316,197.23; also their examination and audit of bills included in vouchers Nos. 1703 to 1709.

On motion of Commissioner DOWD, all of said vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

The Committee on Construction submitted a communication from the Division Engineer of the Seventh Division to the Chief Engineer, in relation to auxiliary offices; which the Chief Engineer and the Committee recommended should be procured.

On motion of Commissioner SPENCER, it was

*Resolved*, That the Chief Engineer is hereby authorized to rent the office near High Bridge referred to by Division Engineer Wegmann in his report to the Chief Engineer, dated May 8th, at the rate of $15 per month, and to have built, at One Hundred and Forty-ninth street and Convent avenue, a temporary office, at a cost not to exceed $250.

In compliance with so much of the resolutions adopted by the Aqueduct Commissioners on the 5th inst. as refer to the new gate house at One Hundred and Thirty-fifth street and Convent avenue, in this city, the Commissioner of Public Works, under date of May 11, 1886, submitted general plans (Exhibit JJ) for said gate house, and an estimate of the cost thereof; the specifications for its construction to be similar to those for the new gate house at Croton Dam.

On motion of the COMPTROLLER, the said plans and estimate were referred to the Chief Engineer for examination and report.

The Comptroller, under date of May 8, 1886, gave notice of the issue of warrants for vouchers not certified by the Aqueduct Commissioners, for the following awards made by the Commissioners of Appraisal for lands taken for the new Aqueduct in the Twenty-fourth Ward of this city, viz.:

| | |
|---|---|
| To James M. McLean, Parcels 76, 76½ ..... | $220 23 |
| To Samuel T. Knapp, Parcels 74, 74½ ..... | 11,672 36 |
| To Van Courtlandt estate, Parcel 75 ..... | 14,026 11 |
| | $25,918 70 |

The notice was ordered placed upon file and entered upon the books of this Commission.

The Secretary submitted a request from General Greene, Chairman of the Board of Examining Engineers, that the original reports of the Division and Assistant Engineers to the Engineer of Construction be produced before them, and on motion of the MAYOR the Secretary was directed to obtain said reports and submit them to said Board.

The Secretary reported (verbally) the result of the conference had by him, under the direction of the Commissioners, with the Counsel to the Corporation, upon the subject of the claims of Mr. Joseph P. Disbrow, and the advice of said Counsel that the said claim be remitted to the Commissioners of Appraisal for adjustment.

Thereupon Commissioner DOWD moved a reconsideration of the following resolution adopted by the Commissioners at their meeting of April 28, 1886, viz.:

*Resolved*, That the sum of twelve hundred dollars ($1,200) be and the same is hereby awarded to Joseph P. Dis-

brow as compensation for the damages done to his dwelling house by blasting in the Aqueduct tunnel through his lands in the Twenty-fourth Ward of this city, and that said amount be certified to the Comptroller for payment to said Disbrow, it being understood that his acceptance thereof is without prejudice to his rights as to other matters for which he claims compensation.

The motion for reconsideration was unanimously adopted.

On motion of the MAYOR, it was then unanimously

*Resolved*, That, under the advice of the Counsel to the Corporation, the claims presented to this Commission by Joseph P. Disbrow, Esq., for compensation for the easement in perpetuity required for the new Aqueduct upon his lands (Parcel 72) in the Twenty-fourth Ward of this city, and for damages inflicted upon his property during the construction of said Aqueduct, be and the same are hereby referred to the Commissioners of Appraisal for adjustment, and the Secretary is hereby directed to notify the counsel of Mr. Disbrow of this action of the Aqueduct Commissioners, and to cancel voucher No. 1680, approved by the Commissioners May 5, 1886, and to furnish to said Commissioners of Appraisal all the information in possession of this Commission in relation to the aforesaid claims.

The Chief Engineer made report, dated 5th inst., upon proposed changes in the location of the new Aqueduct at Shaft Site No. 8, the north cut at the Pocantico River, and submitted diagrams showing said changes.

After discussion of the several changes practicable, the Chief Engineer was directed to have surveys, maps and plans made, showing exactly the modification to be made in the location of the Aqueduct at that place, and to submit said maps and plans to the Commissioners at as early date as practicable.

A letter, dated May 10, 1886, was received from Mrs. Mary A. Walker, remonstrating against the proposed building, by the contractors, of a powder house upon her property near Shaft 23, in the Twenty-fourth Ward, which matter was referred to the Chief Engineer.

Upon motion of Commissioner SPENCER, the Commissioners resumed consideration of the report of the Committee on Construction of May 5, 1886, upon proposed changes in the work at Shafts 25 and 26 upon Section 12 of the new Aqueduct, in connection with which subject Division Engineer Wegmann, by direction of the Chief Engineer, had prepared maps and estimates which were submitted and explained to the Commissioners.

The Commissioners directed further surveys, maps and plans to be made for submission by the Commissioner of Public Works, and consideration by them at the earliest date practicable. Meanwhile action upon the said report was deferred.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, May 19, 1886, at 3 o'clock P. M.

---

A certified copy of the Act, Chapter 337 of the Laws of 1886, amending Chapter 490 of the Laws of 1883, having been received from the Secretary of State and filed in this office, and Messrs. Oliver W. Barnes, Edgar L. Ridgway and Hamilton Fish, Jr., the Commissioners appointed under and by virtue of said Act, having previously presented their commissions, and filed with the Secretary certified copies of their official oath, those gentlemen were in attendance.

The meeting was called to order by Vice-President DOWD, who presided.

Upon call of the roll there were present:

*The Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD, BALDWIN, BARNES RIDGWAY and FISH.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The Secretary was directed to engross the above-named amending act upon the minutes of this Commission.

The minutes of the Stated Meetings of the 12th inst. were read, amended and then approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1710 to 1733, and Commissioner BALDWIN moved that the said vouchers be approved and certified to the Comptroller for payment.

The motion was adopted by the affirmative vote of the Commisssoner of Public Works, and Commissioners Spencer, Dowd and Baldwin—the other Commissioners not voting.

The Committee recommended the adoption of the following resolution, viz.:

*Resolved*, That this Committee recommend to the Commissioners that the sum of two thousand dollars be appropriated for the payment of the stenographer reporting the proceedings of the Board of Examining Engineers created by resolution of the Commissioners on March 16, 1886, and for the traveling and other contingent expenses of the said Engineers.

On motion of Commissioner DOWD, the resolution was adopted.

The Chairman of the Committee on Construction asked consideration of the matters referred to in the report of that Committee on the 5th inst., and of the maps and plans showing the additional lands to be taken at and near

Shafts 25, 26 and 27, on Section 12, and of additional rights to be acquired upon some of the lands on the line of Convent avenue, between One Hundred and Thirty-fifth and One Hundred and Forty-fifth streets, on Section 14 of the new Aqueduct.

The maps and plans were submitted to, and examined by, the Commissioners, and the following resolutions were then offered by Commissioner SPENCER:

*Whereas*, In the construction of the new Aqueduct from the Harlem River to One Hundred and Thirty-fifth street and Convent avenue, other and additional land will be required than appeals upon the six similar maps adopted by the Aqueduct Commissioners on the 17th of June, 1885, in regard to that portion of the new Aqueduct, namely, at and about Section Twelve (12), and Shafts number 25 and 26, as appears from maps and plans presented by the Commissioner of Public Works, and

*Whereas*, Since the aforesaid six similar maps were adopted it has been ascertained that the city has not acquired sufficient rights upon the route of the new Aqueduct between One Hundred and Thirty-fifth and One Hundred and Forty-fifth streets upon the line of Convent avenue; now, therefore,

*Be it Resolved*, That the Counsel to the Corporation be and he is hereby requested and directed to apply to the Supreme Court of the Second Judicial District, to amend the special proceedings heretofore instituted and consummated, in regard to taking lands for the new Aqueduct on the aforesaid portion of the route

of the same, and to cause the other and additional land and property described by the maps prepared and submitted by the Commissioner of Public Works and the Aqueduct Commissioners to said Counsel to the Corporation and by him to said Supreme Court. The additional and other land and property required at and about Section Twelve, and Shafts number 25 and number 26, and appearing on said maps, consists substantially of the following land: an additional parcel of land adjoining, upon the south, the parcel of land between the Harlem River and the Tenth avenue, designated upon the aforesaid six similar maps as "Parcel No. 6," and also for a strip of land between the last named parcel and the property of the City of New York upon the south, known as Reservoir Park; also for the parcel of land on the Tenth avenue upon which is now located the plant for sinking Shaft No. 27; also for the acquirement of the fee in all the lands between One Hundred and Thirty-fifth and One Hundred and Forty-fifth streets upon the line of Convent avenue, shown upon said six similar maps, of which a fee has not heretofore been acquired.

On motion of Commissioner SPENCER, seconded by Commissioner BALDWIN, these resolutions were adopted by the affirmative votes of the Commissioner of Public Works and Commissioners Spencer, Dowd and Baldwin, the other Commissioners not voting; and the Secretary was directed to transmit a copy thereof to the Counsel to the Corporation, together with the certified copies of the maps required for amending said proceedings.

The Comptroller, under date of May 15th, gave notice of the issue of warrants for vouchers not certified by the

Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal, for

| | |
|---|---|
| New York County | $350 00 |
| Westchester County | 1,071 58 |
| | $1,421 58 |

—which notice was ordered placed upon file and entered upon the books of this Commission.

A communication of this date was presented and read from Fordham Morris, Esq., of counsel for Joseph P. Disbrow, in relation to certain claims of Mr. Disbrow heretofore submitted to this Commission; and Mr. Morris being present, was heard upon the subject.

On motion of Commissioner SPENCER, the Secretary was directed to submit said communication to the Counsel to the Corporation, together with copies of all papers heretofore presented in reference to said claims, and to report what action, if any, said Counsel advises the Commissioners to take in the premises.

Another communication, dated May 14th, was received from Mr. Morris, as counsel for Mrs. Janet Sanford, withdrawing from the further consideration of this Commission her application for the taking, in fee, by the City, of the remaining parcel of land owned by her adjoining Shaft Site No. 19, in the City of Yonkers.

The communication was read and ordered placed upon file, and the Committee of Finance and Audit discharged from further consideration of the matter.

A letter of this date was received from Messrs. O'Brien & Clark and Heman Clark, contractors, requesting that

for the purpose of facilitating the work upon the new Aqueduct the Commissioners would obtain permission from the Department of Public Works to string a telephone wire on the poles now upon the line of the old Croton Aqueduct from High Bridge to South Yonkers.

Upon motion of Commissioner BARNES, this request was approved by the Commissioners, and the Secretary authorized to make the application to the Commissioner of Public Works.

Requests were received for permission to remove stone and debris from the shaft sites, as follows:

From O'Brien & Clark; from South Portal No. 18.
From City of Yonkers; from Shafts Nos. 17, 18 and 19.
From W. H. Warnock; from Shafts Nos. 9 and 10.

—all of which were referred to the Committee on Construction.

Commissioner FISH offered the following resolution:

*Resolved*, That Article III. of the By-Laws be amended by providing that the Committee on Construction consist of five members.

The resolution was adopted unanimously.

Commissioner SPENCER next offered the following resolution:

*Resolved*, That a Committee of three be appointed by the Chairman to prepare and present for the consideration of the Commissioners at their next meeting such

other amendments to the By-Laws as such Committee shall deem necessary and proper.

The resolution was adopted unanimously, and the Chairman appointed Commissioners Spencer, Fish and Barnes the Committee. And upon motion of Commissioner BALDWIN, Vice-President Dowd was added to said Committee.

Commissioner RIDGWAY then offered the following resolution:

*Resolved*, That Commissioners Spencer, Squire, Barnes, Fish and Ridgway constitute the Committee on Construction.

Commissioner BALDWIN moved as an amendment to the above resolution "that the Committee on Construction be composed of its present members, and two others to be selected by the Commissioners from the members lately appointed.

The motion was lost by the following vote:

*In the affirmative—Commissioners Spencer, Dowd and Baldwin.*

*In the negative—Commissioners Squire, Barnes, Ridgway and Fish.*

The original resolution was then adopted, Commissioner Baldwin voting in the negative, and Commissioners Spencer and Dowd not voting.

The above-named amending act having retired from this Commission the Mayor and the Comptroller, Commis-

sioner BALDWIN nominated Commissioner Spencer for President of the Commission, vice the Mayor, and he was elected unanimously.

Commissioner Ridgway was then nominated and unanimously elected to fill the vacancy in the Committee of Finance and Audit caused by the retirement of the Comptroller.

The Commissioners went into Executive Council to receive a communication from Mr. Duncan D. McBean; and after hearing and referring the same to the Committee on Construction, they adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, May 26, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, BALDWIN, BARNES, RIDGWAY and FISH.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of May 19th were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers No. 1734 to 1745.

On motion of Commissioner DOWD, said vouchers were approved by the Commissioners and ordered certified to the Comptroller for payment.

The Committee on Construction made report, dated May 24th, with recommendations as follows:

1st. Upon a proposal of Heman Clark, contractor, to sink an incline shaft on Section B of the new Aqueduct for use in lowering building materials for the Aqueduct.

The Committee recommended that authority be given to sink and use said incline shaft at or near Station 1267 on Section B on the dumping grounds belonging to the City, on condition that the whole of the work, including the refilling of said shaft in a satisfactory manner, be done by the contractor at his own expense, and without cost to the City, and that an agreement be made with him to that effect.

These recommendations were approved, and the making of such an agreement authorized by the unanimous vote of the Commissioners.

2d. Upon a request from the Division Engineer of Division No. 2 for authority to employ an able-bodied laborer for rough work upon his division, which request had the approval of the Chief Engineer and the Committee, the compensation of such laborer not to exceed $2 per day.

The Committe recommended that the Chief Engineer be authorized to employ said laborer, and to report the appointment to the Commissioners for approval, and it was so ordered.

3d. Upon a request of the Chief Engineer for authority to build a small auxiliary office for the use of the engineers at the Pocantico Cut and Blow-off, to replace one lately destroyed by fire at that place, and to cost not over $250.

This request was approved by the Committee, and the required authority was given to the Chief Engineer by the Commissioners, and the sum of $250 appropriated for that purpose.

4th. Upon a request of Smith & Brown, contractors upon Section 1 of the new Aqueduct, that an inspector be sent to Maine to inspect stone for the new gate house at Croton Dam, the Committee recommended the adoption of the following resolution:

*Resolved*, That the aforesaid request be granted upon condition that all the expenses of such Inspector be borne by said contractors, the same to be accounted to this Commission by said Inspector, and to be deducted from the monthly estimates of the work done by said contractors; such inspection, however, not to be conclusive or to preclude a subsequent and final inspection of the stone before it is laid upon the work, and upon such terms the Chief Engineer shall send an Inspector from the Engineer Corps.

On motion of Commissioner BARNES, the resolution was adopted unanimously.

The Comptroller, under date of May 22d, gave notice of the issue of a warrant for a voucher not certified by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal for New York County, amounting to $200; which notice was ordered placed upon file and entered upon the books of this Commission.

Notices, dated May 21, 1886, were received from Heman Clark and O'Brien & Clark, that they should hold the

Aqueduct Commissioners responsible for the delay in payment of the monthly estimates for work done in April last, and also a similar notice, dated May 22d, from Brown, Howard & Co.; all of which were ordered placed upon file.

Mr. Joseph P. Disbrow gave notice, dated May 26, 1886, of his revocation of any license heretofore given by him for the occupation by the Commissioners of Parcel No. 72 of his lands, and demanding that said premises be vacated immediately. This matter being now in litigation, the above notice was referred to the Counsel to the Corporation.

A communication was received from Mr. William Russell concerning certain bills of his of which payment has been withheld, and was referred to the Committee of Finance and Audit for consideration.

Commissioner DOWD, offered and Commissioner BARNES seconded, the following resolution, and it was adopted unanimously, viz.:

*Whereas*, There have been some unfavorable public criticism and statements made with regard to cements now being used in constructing the new Aqueduct; therefore be it

*Resolved*, That the Chief Engineer is hereby directed to report to this Board all of the brands of cement offered and examined for use upon the work, which of the same have been accepted and which rejected, and the reasons therefor, and especially whether any cement so rejected at any time has subsequently been accepted and used, and the reasons therefor.

Commissioner BARNES offered, and Commissioner BALDWIN seconded, the following resolution, which was also unanimously adopted, viz.:

*Resolved*, That the President is hereby requested to report to the Aqueduct Commissioners at an early day a review of the work of the Commission to the first day of June, 1886, that shall include the plans and work of construction to that date, and the progress therein, and the plans and projects relating to said Aqueduct, and the dams and reservoirs now under consideration before the Commission that have not been adopted and approved; and the Secretary and the Chief Engineer are hereby directed to report to the President such information as he shall require for the said review, from their respective offices.

Commissioner RIDGWAY then offered this resolution, which was also seconded, and unanimously adopted, viz.:

*Resolved*, That the Secretary be instructed to furnish each of the Commissioners with an abstract of the cost and amount of work done from its beginning up to the present time, the number of persons now employed under direction of the Commission, the capacity in which each is serving and the respective salaries paid therefor.

Commissioner FISH offered the following resolution, which was seconded, and unanimously adopted, viz.:

*Resolved*, That the Secretary be instructed to report to the Aqueduct Commissioners within ten days:

FIRST.—The names of all employees who, while dis-

abled from sickness or other cause, or while absent from duty, have drawn salaries.

SECOND.—The time for which such salaries were paid to each of such employees during such disability or absence.

THIRD.—The amount of salaries paid to each of such employees.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, June 2, 1886, at 3 o'clock P. M.

---

Present:

*Commissioner of Public Works.*
*Commissioners* SPENCER, DOWD, BALDWIN, BARNES, RIDGWAY and FISH.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of May 26th were read and approved.

The Committee of Finance and Audit made report upon the balance now remaining to the credit of the "Additional Water Fund," and of the amount required for continuing the work upon the new Croton Aqueduct, and recommending the adoption of the following resolution:

*Whereas,* In the estimation of the Aqueduct Commissioners, the further sum of two million dollars will be

required to defray the necessary and lawful current expenditures of said Commissioners; now, therefore, be it

*Resolved,* That the Comptroller of the City of New York be and he is hereby requested to raise the sum of two million dollars upon bonds of the City of New York, in conformity with the requirements of Section 32, Chapter 490, Laws of 1883, of the State of New York, for the uses and purposes of the Aqueduct Commissioners, as set forth in said chapter and section of said law.

The resolution was adopted by the affirmative vote of all the Commissioners.

The Chairman of the Committee on Construction requested immediate consideration of a communication from the Counsel to the Corporation, dated June 1st, concerning certain claims of Joseph P. Disbrow, and the litigation pending in relation thereto.

The Communication was read and discussed, and the following resolution submitted by the aforesaid Committee was then adopted unanimously, viz.:

*Whereas,* Question has arisen with regard to the regularity and sufficiency of the proceedings to acquire the right to construct the new Croton Aqueduct through the lands of Joseph P. Disbrow, in the Twenty-fourth Ward of the city, and known as "Parcel No. 72" on the property maps filed in the office of the Register of the City and County of New York, on the 9th day of July, 1884, and also the construction of the said

Aqueduct beneath Parcels Nos. 71 and 73, being the highways adjoining the aforesaid Parcel No. 72; now, therefore, be it

*Resolved*, That for the more efficient carrying out of the provisions of Chapter 490, of the Laws of 1883, of the State of New York, it is hereby

*Resolved*, That the Counsel to the Corporation be and he is hereby requested to immediately take the necessary steps for amending the proceedings heretofore taken, and in lieu of an easement in perpetuity, as shown upon the aforesaid property map, to take, in fee simple, the strip of land, Parcel 72, containing 1.372 acres of land; and also all right, title and interest of the said Joseph P. Disbrow in the roadways and lands of Parcels Nos. 71 and 73; and the Chief Engineer and Secretary are hereby directed to furnish to the said Counsel to the Corporation such further maps and detailed information as he may require for taking the aforesaid amending proceedings.

The Chairman of that Committee next presented a communication from the Chief Engineer about transportation upon the Tenth Avenue Cable Road for the Engineer Corps of the Seventh Division, and, on motion of Commissioner DOWD, it was

*Resolved*, That the Chief Engineer is hereby authorized to contract with the Tenth Avenue Cable Road for the transportation upon said road of the members of the Seventh Division Engineer Corps at a monthly rate not to exceed $3 per capita.

The Comptroller gave notice, under date of May 29th, of the issue of a warrant for voucher not certified by the Aqueduct Commissioners, being for an award by the Commissioners of Appraisal for New York County, amounting to $33.96; also stating the balance remaining to the credit of the Additional Water Fund to be the sum of $777,956.66.

The notice was ordered placed upon file and entered upon the books of this Commission.

An application of this date was received from O'Brien & Clark, contractors, for authority to sink additional shafts between Shafts Nos. 13 and 14, on Section 7, and between Shafts Nos. 15 and 16, on Section 8, both of said shafts to be paid for at the prices named for shaft work in the contracts for said sections; also that access to, and a dumping ground for, an additional shaft between Shafts Nos. 16 and 17, on Section 8, be obtained by the Commissioners for use of the contractors.

Upon motion of Commissioner RIDGWAY, the matter was referred to the Chief Engineer for investigation, and report to the Commissioners at their next meeting.

A letter was received from Edward B. Buckley tendering his resignation as a clerk in the office of the Commissioners, to take effect on the 1st inst.

On motion of Commissioner DOWD, the resignation was accepted, and the Secretary directed to express to Mr. Buckley the Commissioners' high appreciation of his fidelity whilst in their employ.

Commissioner SQUIRE offered the following resolution:

*Resolved*, That the action of the Commissioners on the 19th of May last, in relation to an increase in the number and appointment of the members of the Committee on Construction be and the same is hereby revoked.

The resolution was fully discussed, and finally referred to the Special Committee lately appointed for a revision of the By-laws; the vote being—

*In the affirmative—Commissioners Spencer, Barnes, Ridgway and Fish.*

*In the negative—The Commissioner of Public Works and Commissioners Dowd and Baldwin.*

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, June 9, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD.

*Commissioner of Public Works.*

*Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* BIRDSALL and *Consulting Engineer* ADAMS of the Department of Public Works.

The meeting was opened for public hearing, pursuant to the following notice, said notice having been duly published in the *City Record* and *Tribune* of this city:

" AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, 280 BROADWAY, ROOM 209,
NEW YORK, June 4, 1886.

PUBLIC HEARING.

*To whom it may concern:*

In conformity with the requirements of Section 2, Chapter 490 of the Laws of 1883, of the State of New York,

public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation to the plans now under consideration by the Aqueduct Commissioners for a modification of certain of the plans heretofore adopted for the construction of the new Croton Aqueduct within the City and County of New York, and for the acquirement of additional lands and rights upon certain parts of the route of said Aqueduct and its appurtenances, as follows, viz.:

FIRST.—For a change in the elevation of the said Aqueduct beneath those parcels of land in the Twenty-fourth Ward of this city which are designated upon the maps filed in the office of the Register of the City and County of New York on the 9th day of July, 1884, as Parcels Nos. 71, 72 and 73, and for the acquirement by the City of said parcels of land in fee simple in lieu of a right of easement in perpetuity beneath the surface thereof.

SECOND.—For the acquirement in fee simple of the following lands in the Twelfth Ward of this city, viz.:

An additional strip of land adjoining upon the south the strip or parcel of land designated upon the maps filed in the office of the Register aforesaid on the 28th day of August, 1885, as Parcel No. 6; also of a strip of land between the said Parcel No. 6 and the lands of the City of New York at the High Bridge Reservoir Park; also a parcel of land on the easterly side of the Tenth avenue opposite the site of the working shaft of said Aqueduct near One Hundred and Seventy-fifth street and known as Shaft No. 27; also of the fee simple in lieu of an easement in perpetuity in all the lands within the lines of the proposed Convent avenue between One Hundred and Thirty-fifth and One Hundred and Forty-fifth streets not now owned by this City.

All as shown upon the plans, maps and profiles in this office.

The said public hearing to be at the above-named office of the Aqueduct Commissioners on Wednesday, June 9, 1886, at 3 o'clock P. M., and on such subsequent days to which said hearing may be adjourned.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
*Secretary.*"

The notice was read to those present, and, in response to an announcement by the President that the Commissioners were ready to hear any person interested, George W. Lyon, Esq., of counsel, appeared for Mr. William H. De Forest, owner of certain lands affected by the proposed modification, and briefly stated that his client would neither object or consent to the proposed modification in the plans of the Commissioners with respect to the nature of the estate to be acquired by the City in the lands on the line of the proposed Convent avenue, between One Hundred and Fortieth and One Hundred and Forty-fifth streets; leaving that matter entirely to the decision of the Commissioners, and reserving all his rights as to compensation and otherwise.

No one else appearing, the hearing was suspended for the time being, and the regular order of business taken up.

The minutes of the Stated Meeting of June 2d were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1752 to 1767, and on motion of Commissioner DOWD said vouchers were approved and ordered certified to the Comptroller for payment.

The Committee then made report upon several requests for copies of the plans, contracts, etc., for the new Aqueduct, and recommended the adoption of the following resolution:

*Resolved*, That the Secretary be authorized to furnish to Walter Wood, Esq., a complete set of the drawings, plans, contract forms, &c., of the new Aqueduct at the same cost that bidders and others have been supplied, and that he be authorized to furnish a set of the same to the University of the City of New York, and to complete the set of the Engineers of the Washington Aqueduct, free of charge.

On motion of Commissioner BARNES, the resolution was adopted.

The Committee on Construction made report, dated June 7th, in relation to taking the fee, in lieu of an easement in perpetuity, in the right of way lands of the new Aqueduct in Westchester County, and recommended that the Chief Engineer be directed to prepare and submit for the consideration of the Commissioners maps showing all the parcels of land of which, in his opinion, the fee is essential, and of those in which an easement is sufficient, and to report his estimate of the probable cost of the fee parcels.

This recommendation was adopted, and on motion of Commissioner SPENCER it was

*Resolved*, That the Committee on Construction is hereby requested to consult the Counsel to the Corporation upon the proper course of action to be taken by this Commission to obtain the title of lands for the new Aqueduct from the line between Westchester County and New York County north to Croton Lake, in fee, or a qualified or conditional fee, instead of, or additional to, the easement below the surface already taken.

The Committee next made report, of this date, adversely to a change of the line of the Aqueduct at Shaft Site No. 8.

The matter was discussed, and then laid over for the report upon the subject heretofore called for from the Chief Engineer.

Commissioner RIDGWAY offered the following resolution:

*Resolved*, That the Committee on Construction is hereby requested to consult the Counsel to the Corporation with regard to the power of the Commissioners to order the contractors (except upon Sections A and B) to construct, under their respective contracts and at the prices named therein, such additional shafts upon the line of the new Aqueduct as the Commissioners may deem necessary.

The resolution was adopted.

Commissioner RIDGWAY next offered this resolution, viz.:

*Whereas*, It has been stated to the Committee on Construction that the bricks delivered on Sections 4 and 5 are of a quality unsuitable for the arch work of the tunnel; therefore be it

*Resolved*, That the Chief Engineer is hereby directed to examine the same and report whether such is the fact, and if so to require the contractors, Brown, Howard & Co., to remove from the line of the Aqueduct all the bricks now delivered on said sections, and to furnish bricks strictly conforming to the specifications of their contracts.

The resolution was adopted.

The following resolution was offered by Commissioner BARNES and adopted, viz.:

*Resolved*, That the Chief Engineer is hereby directed to investigate and report to this Commission whether the requirements of Section 29 of the contracts, respecting light and ventilation of the tunnels, are complied with by all the contractors, and hereafter to require said contractors to strictly comply with said requirements, and to keep the tunnels sufficiently free from smoke and noxious gases for the proper progress of the work.

Commissioner BARNES next offered the following resolution, which was adopted:

*Whereas*, At an inspection made by the Aqueduct Commissioners on June 8, 1886, it appeared that the brick

work in that portion of the tunnel north and south of the open cut on Section 4 was of a character not in conformity to the contract specifications; be it

*Resolved*, That the Chief Engineer be and he is hereby requested to report what, in his judgment, is necessary to be done in order to correct the defects in the said work.

The Commissioner of Public Works presented a communication of this date, in relation to a reduction of the Engineer Corps of this Commission, and the saving of expenses in that department, and also in the office of the Secretary.

The communication was read and the matter discussed, and on motion of Commissioner RIDGWAY, seconded by Commissioner BARNES, that part of the communication relating to the Engineer Corps was referred to the Committee on Construction, and that part relating to the office of the Secretary to the Committee of Finance and Audit, for consideration and report.

Commissioner DOWD presented the following memorandum and resolutions, viz.:

MEMORANDUM.

The Jerome Park Reservoir was begun in April, 1885, and at that time it was represented that the necessary surveys and soundings could be completed within a few months. I believe that the work could and should have been long since completed, and that that Engineer Corps should be at once disbanded.

I further believe that with the information furnished by

the Department of Public Works, and that since obtained by the Engineer Corps of this Commission, we now have all that is necessary with regard to the Quaker Bridge Dam and Reservoir, and, therefore, that the Engineer Corps on that survey can and should be dispensed with. Therefore I offer the following resolutions:

*Resolved*, That the Engineer Corps engaged upon the surveys and soundings of the proposed Jerome Park Reservoir be disbanded on the 15th inst.

*Resolved*, That the Engineer Corps engaged upon the surveys of the proposed Quaker Bridge Dam be disbanded on the 15th inst.

The matter was discussed and the resolutions modified, and then adopted, as follows:

*Resolved*, That the Chief Engineer is hereby requested to report upon the surveys and sounding of the proposed Jerome Park Reservoir, and also upon the proposed Quaker Bridge Reservoir, and whether or not one or both of the Engineer Corps engaged on those surveys cannot be disbanded forthwith, without detriment to the work of the Commission.

Commissioner BALDWIN called attention to the fact that the public hearings extending for over two years past, in relation to the construction of the proposed Quaker Bridge Dam and the Muscoot Dam were finally closed on the 27th of January last, and time given until the 1st of May for presenting written communications upon the subject, and believing that those questions should be determined without further delay, he moved that Wednesday, June 23d be now fixed for deciding said questions.

After discussion it was agreed that on the above date the Commissioners would resume the consideration of those questions, and continue the same at each consecutive meeting until a decision is reached.

The Secretary submitted an application from Arthur B. Sinclair for the position of Clerk, vice Buckley resigned, and commended the applicant to the favorable consideration of the Board.

On motion of Commissioner DOWD the Secretary was authorized to employ Master Sinclair as office boy, at a compensation of $5 per week.

The public hearing was resumed, and the notice again read to those who had come in since the first reading.

Mr. William B. Whiteman, owner of the parcel of land upon the Tenth avenue opposite Shaft No. 27, appeared and stated that he would neither consent nor object to the taking of the property, having no purpose to interfere with or obstruct the work of the Commissioners, but meaning to retain all his rights in the premises.

On motion of Commissioner BALDWIN, the hearing was then finally closed.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

NOTE.—The Counsel to the Corporation gives notice this day of the filing in the office of the Clerk of Putnam County, on the 4th of June, 1886, at 2 o'clock P. M., of the

Property Map No. 1 of the lands required for the dams and double reservoir upon the east branch of the Croton River.

June 11, 1886.

JAMES W. McCULLOH,
*Secretary.*

NOTE.—The Counsel to the Corporation gives notice, of this date, of the filing in the office of the Register of the City and County of New York, upon the 14th of June, 1886, of Property Map No. 1 of the lands required for the new Gate House on Convent avenue and One Hundred and Thirty-fifth street, and also the filing on same day in the office of the Register of Westchester County of Property Map No. 2 of said lands.

June 15, 1886.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, June 16, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works, Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH and *Consulting Engineer* ADAMS of the Department of Public Works.

The minutes of the Stated Meeting of June 9th were read and approved.

The Committee of Finance and Audit reported their examination and audit of the monthly estimates of work done by the contractors during the month of May, amounting to the sum of $360,861.67, and the certification of vouchers 1768 to 1781 therefor to the Comptroller for payment; also of the bills included in vouchers Nos. 1782 to 1793, now submitted; and on motion of Commissioner

DOWD the said vouchers were approved, and ordered certified to the Comptroller for payment.

The Committee on Construction made no report.

The Comptroller, under date of June 12th, gave notice of the issue of a warrant for a voucher not certified by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal for Westchester County, and amounting to $4,673.46; which notice was ordered placed upon file, and entered upon the books of this Commission.

The Chief Engineer made reports, as follows:

1st. Dated June 15th. Upon cements used upon the new Aqueduct work.

On motion of Commissioner BALDWIN the Secretary was directed to furnish to each of the Commissioners a copy of this report, and its consideration was deferred until the next meeting.

2d. Dated June 14th. With regard to the proposed changes in the line of the Aqueduct at Shaft Site No. 8, and recommending that the original straight line be adhered to.

The report was read, and on motion of Commissioner SPENCER, the report of the Committee on Construction of June 9th upon this subject was taken up, and the following resolution therein recommended, was adopted unanimously:

*Whereas*, Messrs. Brown, Howard & Co., contractors, have proposed and requested that the line of the new

Aqueduct at Shaft Site No. 8 be changed by the Aqueduct Commissioners in such manner that the Aqueduct may be constructed at that point principally in rock tunnel instead of an open cut, be it therefore

*Resolved,* That the Aqueduct Commissioners, after due consideration of the matter and full examination of the change of the said line as proposed, deem it inexpedient to make such change, and therefore decline to make the same, and that the Secretary furnish said contractors with a copy of this resolution forthwith.

3d. Dated June 15th. Concerning inferior bricks delivered on Sections 4 and 5, and stating that all of the same had been culled out and rejected, and that the few inferior bricks which had been built into the work had now been taken out, and replaced by brick of good quality.

The report was read, and ordered placed upon file.

4th. Dated June 15th. In relation to the lands upon the line of the Aqueduct of which, in his opinion, the fee should now be acquired, and of those in which the easement now possessed is sufficient.

The report was read, and on motion of Commissioner BARNES was referred to the Committee on Construction for consideration and report.

5th. Dated June 15th. In relation to the surveys, and the Engineer Corps upon the Jerome Park Reservoir, and the Quaker Bridge Dam Reservoir, and giving the details of the area, capacity and proposed mode of constructing the former.

The report was read, and as the Chief Engineer therein stated that the work upon the Jerome Park Reservoir surveys was now completed, and that Engineer Corps could be otherwise disposed of; Commissioner DOWD renewed his motion made at the last meeting that said Engineer Corps be disbanded.

The subject was discussed, and the resolution amended as follows:

*Resolved*, That the surveys and soundings for the proposed Jerome Park Reservoir having now been completed, the persons in the Engineer Corps and the laborers heretofore engaged upon that work, be and the same are hereby suspended until they are required for other work, and assigned thereto by the Chief Engineer, and reported to this Board.

The resolution was adopted by the affirmative vote of Commissioners Dowd, Baldwin, Commissoner of Public Works and Commissioner Fish. Commissioners Spencer, Barnes and Ridgway voting in the negative.

On motion of Commissioner RIDGWAY, that part of the aforesaid report relating to the Quaker Bridge Reservoir work and Engineer Corps, was referred to the Committee on Construction.

Fordham Morris, Esq., of counsel for Joseph P. Disbrow, appeared and asked that the public hearing closed upon the 9th inst. be reopened, so far as the same related to the property of his client in the Twenty-fourth Ward of this City.

On motion of Commissioner BARNES this request was granted; the public hearing reopened, and both Mr. Morris

and Mr. Disbrow were heard in opposition to the taking of Parcels 71, 72 and 73 in fee, and in relation to Mr. Disbrow's claims for compensation.

The matter was then referred to the Committee on Construction for further consideration; and on motion of Commissioner DOWD the public hearing was finally closed.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

# MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, June 23, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works, Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of June 16th were read, amended and then approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1794 to 1816, and on motion of Commissioner DOWD the said vouchers were approved by the Commissioners, and ordered certified to the Comptroller for payment.

The Committee also made report, of this date, upon that part of the communication of June 9th from the Commis-

sioner of Public Works which relates to the employees in the office of the Secretary.

The report was read, and on motion of Commissioner RIDGWAY was laid over until the next meeting.

The Committee on Construction made report, dated June 22d, regarding the acquirement by the City of the fee simple, in lieu of an easement in perpetuity, in the lands upon the line of the new Aqueduct, and recommended the adoption of the following preamble and resolution:

*Whereas,* In the progress of the work upon the new Croton Aqueduct it has become apparent to the Aqueduct Commissioners that the best interest of the City requires that for the proper construction, future protection and maintenance of the said Aqueduct, the City should acquire the fee simple in lieu of an easement in perpetuity in nearly all the parcels of land not heretofore taken in fee upon the line of said Aqueduct between the Croton River and the Gate House at One Hundred and Thirty-fifth street and Convent avenue in this city; now, therefore be it

*Resolved,* That proceedings be immediately initiated to acqurie the fee simple in said lands, and that public hearing be given to all persons interested upon the general question of making such change in the plans heretofore adopted and proceeded upon by the Aqueduct Commissioners, said hearing to be given on the 1st day of July next at 11 o clock A. M., and upon such other days thereafter to which the same may be adjourned.

On motion of Commissioner BARNES the resolution was adopted, and the Secretary was directed to publish notice of said hearing in the *City Record* and in two of the papers published at White Plains in Westchester County.

In connection with this subject Commissioner SPENCER presented and had read a letter from the Commissioners of Appraisal for lands taken in the City and County of New York, expressing their favorable opinion of such action by this Commission so far as the same relates to lands in said County.

The COMMISSIONER OF PUBLIC WORKS submitted a plan for a modification of the plans heretofore adopted, and including additional lands, at and near Shafts 25, 26 and 27, in the Twelfth Ward of this city, and on motion of Commissioner BARNES, said plan was referred to the Committee on Construction for examination and report.

Under date of June 19th, the Comptroller gave notice of the issue of warrants for vouchers not certified by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal for New York City and County, amounting to the sum of $1,000; which notice was read, and ordered placed upon file, and entered upon the books of this Commission.

The Secretary presented a request from the Comptroller for a set of the lithograph copies of the plans of the new Aqueduct and its appurtenances, and on motion of Commissioner DOWD, the Secretary was instructed to furnish said copies.

The Secretary (verbally) reported that the apartments leased from Mr. Charles Schwarz for the use of the Engi-

neers, at High Bridge Park, were now nearly ready for occupancy, and the lease ready for execution, and on motion of Commissioner BARNES, it was

*Resolved*, That the President and Vice-President, either one or the other of them, are hereby authorized and requested on behalf of the Aqueduct Commissioners to execute such leases as may be authorized by said Commissioners for buildings rented upon the line of the new Aqueduct for the use of the Engineers.

The Chief Engineer, under date June 17th, reported the suspension on that day of the Engineer Corps and laborers heretofore engaged upon the surveys of the proposed Jerome Park Reservoir, and his assignment to duty elsewhere of Assistant Engineer Swan, Leveler Bonnett and Rodman Rathborne of that Corps, which action was approved by the Commissioners, and the report ordered placed upon file.

The Chief Engineer next made report, of this date, concerning the past observance by the contractors of the requirements of Section 29 of the contracts relating to light and ventilation in the tunnels, and the orders lately given by him to enforce more strict compliance with said requirements hereafter.

The report was read and ordered placed upon file.

The Chief Engineer next submitted a report supplemental to that of June 15th, upon the cements used in the construction of the new Aqueduct, and on motion of Commissioner DOWD, the Secretary was directed to fur-

nish to each of the Commissioners a copy of this last report, and to place the original on file.

A letter was received from Messrs. O'Brien & Clark and Heman Clark, dated June 22, 1886, giving notice that they should should "hold the City liable for all damages arising from delay in payment of the monthly estimates."

The notice was read and ordered placed upon file, and the Secretary directed to transmit a copy thereof to the Comptroller.

A communication was received from Mr. James O'Friel, asking an examination of a new material for constructing the arches, etc., for the lining of the Aqueduct, and on motion of Commissioner BALDWIN it was referred to the Chief Engineer for investigation and report.

This day having heretofore been fixed for resuming consideration of the proposed construction of the Quaker Bridge and the Muscoot Dams and Reservoirs, those matters were called up by Commissioner BALDWIN, and on his motion their consideration was deferred until Thursday, July 1st next.

Commissioner FISH offered the following resolution:

*Resolved*, That until otherwise ordered, the Stated Meetings of the Aqueduct Commissioners be hereafter held at the hour of 2 o'clock P. M.

The resolution was adopted unanimously.

The early closing of the office of the Commissioners on Saturdays during the summer months was then considered,

and on motion of Commissioner SPENCER the Chief Engineer and Secretary were authorized, until otherwise ordered, to grant to the employees of their respective departments half holidays on Saturdays, when the same can be done without detriment to the work of the Commission.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, June 30, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works*, *Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of June 23d were read and approved.

The Committee of Finance and Audit reported their examination and audit of vouchers Nos. 1817 and 1818, for the correction of erroneous deductions in estimates 16 and 17, for work on Sections 8 and 9; also of bills included in vouchers Nos. 1825 to 1835; and, on motion of Commissioner DOWD, said vouchers were approved by the Commissioners and ordered certified to the Comptroller for ment.

The Committee on Construction, under date of June 29th, submitted a recommendation of the Chief Engineer that nine Masonry Inspectors be selected and appointed, as the masonry will soon be started at many points in the tunnels; upon which the Committee had selected and certified to the competency of the following persons, and recommended their appointment, viz.:

| | |
|---|---|
| Charles E. Taft, | John C. Dooley, |
| Lawrence Manning, | William J. McKeon, |
| John E. Lynch, | James C. Ryan, |
| Isaac Thomas, | Bernard Fitzgerald, and |

Thomas McCormick.

On motion of Commissioner RIDGWAY, the recommendations of the Committee were approved and the above-named persons appointed Inspectors of Masonry by the affirmative vote of Commissioners Spencer, Squire, Barnes, Ridgway and Fish; Commissioner Dowd voting in the negative; to be assigned to duty by the Chief Engineer as the progress of the work may require.

The Committee next reported and moved the adoption of the following resolution:

*Resolved*, That the Commissioner of Public Works is respectfully requested to report at the earliest day practicable the plans for the Aqueduct from One Hundred and Thirty-fifth street to the Central Park Reservoir, and for the Gate House on the north side of said reservoir, as formally required by the Commissioners on the 5th day of May, 1886.

The resolution was adopted.

The COMMISSIONER OF PUBLIC WORKS called for his communication of April 27, 1886, and read therefrom the following extract:

"The Gate House at Central Park Reservoir and the conduit or pipe lines called for south of One Hundred and Thirty-fifth street will interfere with the reservoir in Central Park and with the distributing mains, sewers, etc., wholly in charge of the Department of Public Works.

"I do not think it advisable to summit plans for same except under the provision that they shall be made under the direction of, and the work done under the supervision and inspection of the Engineers and employees of the Department of Public Works."

The matter was discussed, and detail plans for the Gate House at One Hundred and Thirty-fifth street and Convent avenue were produced by the Chief Engineer. After examination of the above plans and explanations from the Chief Engineers of this Commission and of the Department of Public Works, the said plans were, on motion of Commissioner RIDGWAY, referred to the Committee on Construction for further examination and report, pending which, on motion of Commissioner BARNES, the adoption of the above resolution was reconsidered, and the resolution then laid on the table.

The COMMISSIONER OF PUBLIC WORKS informally submitted Final Plan Sheets 5A and 5B for taking additional lands at Shafts 25 to 27, and on the line of Convent avenue, in the Twelfth Ward of the City; also the property maps covering the lands to be so taken, which, on motion of

Commissioner BARNES, were referred to the Committee on Construction for examination and report.

The following notice received from the Comptroller was read and ordered spread upon these minutes, and entered upon the books of this Commission:

" CITY OF NEW YORK—FINANCE DEPARTMENT,
COMPTROLLER'S OFFICE,

June 24, 1886.

JAMES W. MCCULLOH, Esq.,
*Secretary Aqueduct Commissioners:*

Sir,—In compliance with the resolution adopted June 2, 1886, by the Aqueduct Commission, proposals for the sum of $2,000,000 additional water stock of the City of New York, after due advertisement in the *City Record*, and by the enclosed circular, were opened by the Comptroller at his office, as required by law, on June 17, 1886, and the whole amount was awarded.

The awards of stock, as approved by the Commissioners of the Sinking Fund present at the opening of the proposals, and the premium paid by the highest bidders, respectively, to whom the awards were made, are as follows:

| | AMOUNT AWARDED. | RATE. | AMOUNT, INCLUDING PREMIUM. |
|---|---|---|---|
| Blake Brothers & Co.<br>Vermilye & Co. | $1,900,000 00 | $105 03 | $1,995,570 00 |
| The Emigrant Industrial Savings Bank | 100,000 00 | 105 35 | 105,350 00 |
| Total | $2,000,000 00 | | $2,100,920 00 |

The proceeds of the sale of said stock amounting to the sum of $2,100,920 have been deposited in the City Treasury to the credit of the 'Additional Water Fund.'

Very respectfully,

(Signed) EDWARD V. LOEW,
*Comptroller.*"

Notice was also received from the Comptroller, dated June 26th, of the issue of warrants for vouchers not certified by the Aqueduct Commissioners, and appertaining to the work of the Commissioners of Appraisal for New York City and County, amounting to $1,500, which was ordered placed upon file, and entered upon the books of this Commission.

The Chief Engineer requested an additional appropriation of $25 for the auxiliary office for the Engineers at the Pocantico Cut, and on motion of Commissioner BARNES, the appropriation was made.

The Chief Engineer then submitted, for approval by the Commissioners, the detail plans for the iron work of the Saw Mill River Waste Gate House, and on motion of Commissioner BARNES, it was

*Resolved,* That the plans for the ironwork of the Saw Mill River Waste Gate House, this day submitted by the Chief Engineer, be referred to the Committee on Construction, with power, to advertise for bids to be submitted to the Commissioners, and make an agreement for furnishing the materials and doing the work under the provisions of Section 33 of the statute, at a cost not to exceed $2,500, and in accordance with

specifications to be prepared by the Chief Engineer, and submitted to said Committee for approval.

The Secretary presented a claim of Thomas L. Ogden, Esq., for legal services in the matter of the taking, in fee of lands of the Van Courtlandt estate in the Twenty-fourth Ward, amounting to $389.50.

On motion of Commissioner RIDGWAY, the claim was referred to the Committee of Finance and Audit for investigation and report.

Commissioner FISH offered the following preambles and resolutions, viz.:

*Whereas*, Several complaints have been made to this Commission by the contractors constructing the Aqueduct, that the payment of their estimates have been delayed by the Comptroller after their certification by this Commission; and

*Whereas*, The contractors have given notice to this Commission that they will hold the City liable for the damages arising therefrom; and

*Whereas*, The provisions of the contracts require the prompt payment of the estimates as soon as certified by the Chief Engineer and the Commissioners, and the Commission is of the opinion that the Comptroller has no right to delay such payments;

*Resolved*, That whereas a difference of opinion exists between the Commission and the Comptroller as to his right to cause such delay; therefore

*Resolved*, That the President of this Commission is hereby directed to submit the question, together with the letters from the contractors on the subject, and the letter from the Commission to the Comptroller, to the Counsel to the Corporation for his opinion in the premises.

After discussion the resolutions were adopted by the affirmative vote of the Commissioner of Public Works, and Commissioners Barnes, Ridgway and Fish; Commissioners Dowd and Baldwin voting in the negative, and President Spencer not voting.

Commissioner DOWD called up the report of June 23d of the Committee of Finance and Audit, laid over from the last meeting, in relation to employees in the office of the Secretary, and on motion of Commissioner RIDGWAY the report was laid on the table by the affirmative vote of the Commissioner of Public Works, Commissioners Barnes, Ridgway and Fish; Commissioners Spencer, Dowd and Baldwin voting in the negative.

Commmissioner RIDGWAY offered the following resolution, which was adopted, viz.:

*Resolved*, That the office of the Commission be closed on Saturday, July 3d, and remain closed until Tuesday morning, July 6th.

On motion of Commissioner BARNES it was

*Resolved*, That on and after the 1st of July, 1886, the pay of all Inspectors of Masonry, whether in tunnel or

on surface work, be at the rate of $4 per day; the pay of Special Inspectors Kalmbach, Wheeler and Gill to remain as heretofore, at $5 per day.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

# MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Thursday, July 1, 1886, at 11 o'clock A. M.

---

Present:

*Commissioners* SPENCER, BALDWIN, BARNES, RIDGWAY and FISH.

The meeting was held for public hearing, pursuant to the following notice:

" AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, 280 BROADWAY, ROOM 209,
NEW YORK, June 24, 1886.

PUBLIC HEARING.

*To whom it may concern:*

Whereas, in the progress of the work upon the new Croton Aqueduct it has become apparent to the Aqueduct Commissioners that the best interest of the City requires that for the proper construction, future protection and maintenance of the said Aqueduct, the City should acquire the

fee simple in lieu of an easement in perpetuity in the lands required for the said Aqueduct and its appurtenances, between the Croton River and the gate house at One Hundred and Thirty-fifth street and Convent avenue in this city; now, therefore, in conformity with the requirements of Section 2, Chapter 490, of the Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation to the plans now under consideration by the Aqueduct Commissioners for a modification of the plans heretofore adopted and proceeded upon for the construction of the said Aqueduct, from the Croton River to the aforesaid gate house in the City of New York; and for the acquirement of the fee simple, in lieu of an easement in perpetuity, in all the parcels of land required for said Aqueduct and its appurtenances (save a few exceptional cases) not heretofore taken in fee upon the line of the said Aqueduct.

The said public hearing to be at the above-named office of the Aqueduct Commissioners on Thursday, July 1, 1886, at 11 o'clock A. M., and upon such other days thereafter to which said hearing may be adjourned.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
*Secretary.*"

By direction of the Commissioners the said notice, and also the minutes of the proceedings of the Commissioners in relation to this subject, at their meetings of June 16th and 23d were read to those present, and the President then announced that the Commissioners were ready to hear any one interested.

Mr. James Wood, of Mt. Kisco, was heard upon the taking of the fee of lands in Westchester County, and of certain conditions as to the use of the surface by owners of the adjacent lands; and his statements were recorded at length by the stenographer of the Commission.

Mr. Edward Morrison was also heard in opposition to the taking of the fee in certain lots in the Twelfth Ward owned by him.

Mr. William Whiteman, representing the owner of the lots to be taken near Shaft No. 27, also appeared, but did not wish to be heard.

On motion of Commissioner RIDGWAY, the hearing was then adjourned until Wednesday next, July 7th, at 11 A. M., and the Secretary directed to publish notice of said adjourned hearing in the *Daily Graphic*, *Tribune* and *Star*.

The Secretary was also directed to confer with the Board of Street Openings and Improvements regarding the proceedings initiated by said Board for opening Convent avenue from One Hundred and Thirty-seventh street northward to One Hundred and Forty-fifth street; and as tc the feasibility of continuing such opening northward to One Hundred and Fiftieth street; and to report the result of such conference to the Commissioners.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary*.

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, July 7, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works, Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also Chief Engineer Church, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The meeting was opened for public hearing, pursuant to the following notice, published in the *City Record, Times, Tribune* and *Graphic:*

"TO WHOM IT MAY CONCERN.

AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, 280 BROADWAY, ROOM 209,
NEW YORK, July 1, 1886.

PUBLIC HEARING.

*To whom it may concern:*

*Whereas*, in the progress of the work upon the new Croton Aqueduct it has become apparent to the Aqueduct

Commissioners that the best interest of the city requires that for the proper construction, future protection and maintenance of the said Aqueduct, the City should acquire the fee simple in lieu of an easement in perpetuity in the lands required for the said Aqueduct and its appurtenances, between the Croton River and the Gate House at One Hundred and Thirty-fifth street and Convent avenue in this city; now, therefore, in conformity with the requirements of Section 2, Chapter 490 of the Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation to the plans now under consideration by the Aqueduct Commissioners for a modification of the plans heretofore adopted and proceeded upon for the construction of the said Aqueduct, from the Croton River to the aforesaid Gate House in the City of New York; and for the acquirement of the fee simple, in lieu of an easement in perpetuity, in all the parcels of land required for said Aqueduct and its appurtenances (save a few exceptional cases) not heretofore taken in fee upon the line of the said Aqueduct.

The said public hearing to be at the above-named office of the Aqueduct Commissioners, on Wednesday, July 7, 1886, at 11 o'clock A. M., and upon such other days thereafter to which said hearing may be adjourned.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
*Secretary.*"

The PRESIDENT announced that the Commissioners were ready to hear any one present, but no one responding, the

public hearing was suspended, and the regular order of business taken up.

The minutes of the Stated Meeting of June 30th and of the Special Meeting of July 1st were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1836 to 1848; and, on motion of Commissioner DOWD, said vouchers were approved by the Commissioners, and ordered certified to the Comptroller for payment.

The Committee on Construction made report, dated July 2d, with regard to the plans for the new Gate House at One Hundred and Thirty-fifth street and Convent avenue, and reported for adoption by the Commissioners the following resolution:

*Resolved*, That the plans of the Gate House at One Hundred and Thirty-fifth street and Convent avenue and connections with the iron mains running south and with the old and the new Aqueducts, referred to us by the Commissioners—the said plans consisting of general plan of Gate House marked "No. 1," showing the connections with the new Croton Aqueduct entering it; and also the connections between this Gate House and the old Croton Aqueduct; and the connections with pipes, gates and stop-cocks of the eight mains running south from that Gate House, plan marked No. 2, Sheet No. 62, showing the longitudinal vertical sections through foundations; plan marked No. 3, Sheet No. 63, showing transverse vertical sections through foundations; plan marked No. 4, Sheet No. 64, showing vertical sections through

Aqueduct entering Gate House—the same having been approved by the Chief Engineer, are hereby approved by the Committee on Construction, and so certified to the Commissioners for their approval and adoption.

The Commissioners approved and adopted the above-named plans.

The Committee also offered the following resolution, which was unanimously adopted.

*Resolved*, That the resolution passed at the last meeting, referring the plans for iron work at Saw Mill River Gate House to the Committee on Construction, shall include a small portion of ironwork immediately required for the Pocantico and Tibbet's Brook Gate Houses, contained in said plans.

In response to the resolution of the Commissioners of the 5th of May last, the Commissioner of Public Works, under date of July 6th, submitted a general plan, map, specification and estimate for a conduit or pipe lines between the Gate House at One Hundred and Thirty-fifth street and the gate house at the new Reservoir in Central Park, the said map being Exhibit MM.

The Commissioner also called attention to the provisions of Section 316 of the Consolidation Act of 1882, and in view thereof recommended that the contracts, detailed drawings, direction, supervision and inspection for the construction of said conduit or pipe lines be entrusted to the engineers and other subordinates of the Department of Public Works, under the provisions of Section 30, Chapter 490 of the Laws of 1883.

On motion of Commissioner BARNES, the said maps, plans, specifications and estimates were referred to the Chief Engineer for examination and report, and the communication of the Commissioner of Public Works was ordered placed upon file for future consideration.

The Comptroller gave notice, under date of July 3d, of the issue of a warrant for the payment of a voucher not certified by the Aqueduct Commissioners, for expenditures of the Commissioners of Appraisal for New York City and County, amounting to $315.85, which notice was ordered placed upon file and entered upon the books of this Commission.

The Secretary presented a detailed abstract of the total expenditures of the Commission up to June 30, 1886, which was referred to the Committee of Finance and Audit.

Commissioner RIDGWAY called from the table the majority report of the Committee of Finance and Audit of June 23d, in relation to the compensation of employees in the office of the Secretary of the Commission, and presented a minority report dated July 7, 1886.

Commissioner DOWD objected to receiving the report as out of order, for the reason that two meetings had passed since the submission of the majority report, and the minority report had never been considered by the Committee of Finance and Audit.

The President held that the Commissioners were not bound by any order of procedure in the case, and that the report could properly be presented.

Commissioner BARNES then moved that the minority report be received, which motion was carried.

The minority report was then read, and Commissioner DOWD moved to lay it upon the table.

The motion was lost, Commissioners Barnes, Ridgway, Fish, and the Commissioner of Public Works voting in the negative; Commissioners Dowd and Baldwin voting in the affirmative; the President not voting.

Commissioner RIDGWAY then moved the adoption of the recommendation of the minority report, that the salaries of the employees in the office of the Secretary remain as now fixed, with the exception of the compensation of the Secretary, and that that be reduced to the rate of $4,000 per annum, said reduction to take place from and after this date.

Commissioner DOWD moved as an amendment that the majority report of June 23d be adopted, which motion was lost by the following vote:

*In the affirmative — President Spencer, Vice-President Dowd and Commissioner Baldwin.*

*In the negative—Commissioners Barnes, Ridgway and Fish, and the Commissioner of Public Works.*

The motion of Commissioner RIDGWAY, was then adopted by the affirmative vote of the Commissioner of Public Works and Commissioners Barnes, Ridgway and Fish; the President, Vice-President and Commissioner Baldwin voting in the negative.

The public hearing was then resumed and the notice read.

No one present desiring to be heard, Commissioner BARNES moved that the said public hearing be now finally closed.

The motion was carried unanimously, and the PRESIDENT declared the public hearing closed.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Tuesday, July 13, 1886, at 1 o'clock P. M.

---

Present:
*Commissioners* SPENCER, BARNES, RIDGWAY and FISH.

The meeting was called by the PRESIDENT for the purpose of submitting to the Board a communication in relation to its action concerning the compensation of the Secretary of the Commission.

The communication was read by the PRESIDENT and discussed by the Commissioners present, but no action taken thereon, and the meeting adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, on Wednesday, July 14, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, *and Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of July 7th were read and approved.

The Committee of Finance and Audit reported their examination and audit of the monthly estimates of work by the contractors during the month of June, as per vouchers Nos. 1849 to 1862, amounting to the sum of $402,348.34, and of the certification of said vouchers to the Comptroller for payment. Also their examination and audit of bills contained in vouchers Nos. 1863 to 1877, and on motion of Commissioner DOWD said vouchers were approved by the Commissioners, and ordered certified to the Comptroller for payment.

The Committee on Construction presented a report, dated July 13th, in relation to the construction of a crib dock upon the westerly side of the Harlem River, near Shaft 25, and submitted the bids received by them for the construction of said dock, and recommended, for reasons therein stated, that the contract for constructing said dock be awarded to Charles Peterson, and that the work be done by him under an agreement to be prepared by the Committee and executed by the President on behalf of the Commissioners, under the provisions of Section 30 of the statute.

The Committee also submitted the form of certificate required by said section of the act.

On motion of Commissioner SPENCER the recommendations of the Committee were approved by the Commissioners; said Committee authorized to prepare, and the President to execute on behalf of the Commissioners, an agreement with Mr. Peterson at the prices named in his bid; the work to be completed within the time named by him in his bid.

The Chairman of the Committee on Construction submitted the following preamble and resolution:

*Whereas*, Public hearing has been given, and opportunity offered to all persons interested in the proposed change in the plans for the construction of the new Croton Aqueduct for the taking of the fee simple, in lieu of an easement in perpetuity, in most of the lands upon the line of said Aqueduct, from Croton Dam to One Hundred and Thirty-fifth street and Convent avenue in this city; therefore be it

*Resolved*, That the President, Vice-President, Commissioner of Public Works and Commissioner Barnes be and they are hereby appointed a Committee to take into consideration the question of the lands to be taken in fee simple on the line of the new Croton Aqueduct, and to report to this Commission specifically what parcels of land should be so taken, and on what parcels an easement in perpetuity is sufficient; and said Committee are also authorized to hear and negotiate with the owners of any parcels of land upon which an easement in perpetuity is now held by the City for said Aqueduct purposes, with regard to a change in the present easement to a conditional fee or to an enlarged easement, if said owners so desire, and to report thereon to this Commission.

Several amendments were offered and lost, and the original resolution was then carried by the affirmative vote of the President, Vice-President, and Commissioners Baldwin and Barnes, Commissioners Ridgway and Fish voting in the negative.

The Chief Engineer, under date of July 14th, requested authority to select a temporary helper for work upon the Diamond Rock Drill during the absence of the regular helper, and on motion of Commissioner BARNES the authority was given.

The Chief Engineer, under date of July 8th, gave notice of the resignation of David B. Lewis as Transitman, taking effect July 1st. And under date of July 9th, notice of the resignation of Charles N. Perry as Chainman, to take effect July 7th, which notices were ordered placed upon file.

The Chief Engineer next submitted a communication from Brown, Howard & Co., contractors, asking for an extension of time within which to make the necessary arrangements for carrying out the orders of the Chief Engineer of June 22d in relation to light and ventilation in the tunnels, the 15th inst. having been named by the Chief Engineer as the date within which such arrangements should be completed.

After discussion of the matter, on motion of Commissioner BALDWIN, the Chief Engineer was authorized to give to said contractors an extension of fifteen days from the 15th inst., and to require them to complete their arrangements within that time.

The Secretary presented a communication from the Civil Service Examining Board, accompanied by a copy of the decision of the Supreme Court, General Term, sustaining the opinion of Judge Lawrence with regard to the examination of appointees and employees of the Aqueduct Commission.

The communication was laid upon the table, and the Secretary directed to ascertain and report whether the Counsel to the Corporation required any further instructions in the matter before carrying the case to the Court of Appeals for final determination.

The PRESIDENT called attention to the action of the Commissioners at their last meeting in relation to the salary of the Secretary, and asked that the time when the reduction should take place be extended.

The matter was discussed by the Commissioners, and a

motion to extend the time to the 1st of September, and also a motion to extend it to the 1st of August was lost.

The Commissioners then went into Executive Session to receive the report of the Examining Engineers upon the charges preferred against the Chief Engineer, and upon resuming the open session the said report was ordered to be given to the press, and the Secretary directed to place the same on file, and to express to the Examining Engineers the thanks of the Commissioners for their very careful and thorough examination of said charges, and of the character and requirements of the work upon the new Aqueduct.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, July 21, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works, Commissioners* BALDWIN, BARNES RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of July 14th were read, amended and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos. 1878 to 1890, and on motion of Commissioner DOWD the said vouchers were approved, and ordered certified to the Comptroller for payment.

The Committee on Construction made report, of this date, upon that part of the communication of the Commissioner of Public Works, dated July 9th, relative to the organization of the Engineer Corps, and recommendod that said Corps, upon the line of the Aqueduct, from Croton Lake to the Central Park in New York, be divided into five divisions, and that the work be in charge of the following engineers, under direction of the Chief Engineer, viz.:

1st. Two Principal Assistant Engineers.

2d. Five Division Engineers.

3d. Assistant Engineers, not exceeding three, to be assigned to each division.

4th. Such Rodmen, Chainmen, Drivers and Laborers as may be required from time to time on each division.

The Committee also recommended that the two Principal Assistant Engineers be appointed and assigned to duty at once, and that the Division Engineers be now selected and appointed, and assigned to their duties on the 1st day of August next.

On motion of Commissioner RIDGWAY the first recommendation was approved; and on motion of Commissioner BALDWIN the selection of the two Principal Assistant Engineers and of the Division Engineers was postponed until Tuesday, the 27th inst., at 2 o'clock P. M.

The Committee next made report, dated July 20th, in

Commissioner BARNES then moved that the minority report be received, which motion was carried.

The minority report was then read, and Commissioner DOWD moved to lay it upon the table.

The motion was lost, Commissioners Barnes, Ridgway, Fish, and the Commissioner of Public Works voting in the negative; Commissioners Dowd and Baldwin voting in the affirmative; the President not voting.

Commissioner RIDGWAY then moved the adoption of the recommendation of the minority report, that the salaries of the employees in the office of the Secretary remain as now fixed, with the exception of the compensation of the Secretary, and that that be reduced to the rate of $4,000 per annum, said reduction to take place from and after this date.

Commissioner DOWD moved as an amendment that the majority report of June 23d be adopted, which motion was lost by the following vote:

*In the affirmative — President Spencer, Vice-President Dowd and Commissioner Baldwin.*

*In the negative—Commissioners Barnes, Ridgway and Fish, and the Commissioner of Public Works.*

The motion of Commissioner RIDGWAY, was then adopted by the affirmative vote of the Commissioner of Public Works and Commissioners Barnes, Ridgway and Fish; the President, Vice-President and Commissioner Baldwin voting in the negative.

The public hearing was then resumed and the notice read.

No one present desiring to be heard, Commissioner BARNES moved that the said public hearing be now finally closed.

The motion was carried unanimously, and the PRESIDENT declared the public hearing closed.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

and certified by the Chief Engineer, and approved by the Committee on Construction, Commissioner BARNES offered the following preambles and resolutions:

*Whereas*, In our opinion the best interest of the City requires that in lieu of an easement in perpetuity the fee simple should be taken in all those certain parcels of land in the Twelfth Ward of this city lying between One Hundred and Thirty-seventh and One Hundred and Forty-fifth streets on the line of Convent avenue as shown upon the map filed in the office of the Register of the City and County of New York on the 28th day of August, 1885; and also that certain additional parcels of land at and near the shafts designated upon said map as Shafts 25, 26 and 27 in said Ward, should be taken in fee simple for the construction of the new Croton Aqueduct and its appurtenances; and

*Whereas*, The Commissioner of Public Works heretofore submitted to us plans for the taking of the above-named parcels of land in fee simple; and

*Whereas*, Full opportunity has been given to all persons interested to be heard in relation to the taking of the aforesaid parcels of land in fee simple, due notice of said public hearing having been given; now, therefore, be it

*Resolved*, That for the more efficient carrying out of the provisions of Chapter 490 of the Laws of 1883 of the State of New York; we, the Commissioners appointed to carry out the provisions of said chapter of said

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, on Wednesday, July 14, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, *and Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of July 7th were read and approved.

The Committee of Finance and Audit reported their examination and audit of the monthly estimates of work by the contractors during the month of June, as per vouchers Nos. 1849 to 1862, amounting to the sum of $402,348.34, and of the certification of said vouchers to the Comptroller for payment. Also their examination and audit of bills contained in vouchers Nos. 1863 to 1877, and on motion of Commissioner DOWD said vouchers were approved by the Commissioners, and ordered certified to the Comptroller for payment.

maps filed in the office of the Register of the City and County of New York on the 28th day of August, 1885, "Parcel No. 70"), and the southerly side of One Hundred and Forty-fifth street; this modified plan being for the acquirement of the fee simple in the lands above described, and forming that part of said proposed new avenue.

*Resolved*, That the Secretary is hereby directed to have the above named plans duly certified and filed in this office, and to transmit a certified copy thereof to the Commissioner of Public Works for filing in his Department.

The resolutions were adopted by the unanimous vote of the Commissioners.

Commissioner BARNES next offered the following preamble and resolution, which was also adopted by the unanimous vote of the Commissioners.

*Whereas*, In compliance with the requirements of Section 4, Chapter 490 of the Laws of 1883, the Commissioner of Public Works has prepared and now submits to us the six similar property maps of additional lands to be taken in fee simple for the new Croton Aqueduct and its appurtenances at and near Shafts 25, 26 and 27, in the Twelfth Ward of this city, as the same are shown upon the maps approved by the Aqueduct Commissioners on the 17th day of June, 1885, and filed in the office of the Register of the City and County of New York on the 28th day of August, 1885,

and also as shown upon the "Final Plan Sheet No. 5A," this day approved and adopted by us; and

*Whereas*, In compliance with the requirements of said section of said laws, the said Commissioner of Public Works has also prepared and now submits to us the six similar property maps of the additional lands to be taken in fee upon the proposed new Convent avenue between One Hundred and Thirty-seventh and One Hundred and Forty-fifth streets, on the line of the new Croton Aqueduct, as shown upon the plans adopted and filed on the 9th day of April, 1884, and also as shown upon the "Final Plan Sheet No. 5B," this day approved and adopted by us; therefore, be it

*Resolved*, That the above-named property maps this day submitted by the Commissioner of Public Works, in accordance with Section 4, Chapter 490 of the Laws of 1883, be and the same are hereby approved and adopted by us; and the Secretary is hereby directed to have the same duly certified by the Aqueduct Commissioners, as required by said section of said act, and to transmit Nos. 1, 2, 4, 5 and 6 of said maps so certified to the Counsel to the Corporation, with request that he cause Nos. 1 and 2 thereof to be filed in the office of the Registers of the City and County of New York and of the County of Westchester, and Nos. 4, 5 and 6 thereof to be delivered to the Commissioners of Appraisal, as required by said act.

The Comptroller, under date of July 14th, gave notice of the issue of warrants for vouchers not certified by the Aqueduct Commissioners, for counsel fees, etc., in mat-

ters before the Commissioners of Appraisal for Westchester County, amounting to $2,775, and for clerical services rendered to the Commissioners of Appraisal for New York County, amounting to $200, which notice was ordered placed upon file and entered upon the books of this Commission.

The Chairman of the Special Committee on the taking of additional estate in parcels of land upon the line of the new Aqueduct stated that the Committee were not yet prepared to make report; and, upon motion of Commissioner BARNES, Commissioner Fish was made a member of said Committee.

The Chief Engineer made report, of this date, recommending that the additional shaft heretofore ordered by the Commissioners to be located between Shafts 12B and 13 should be located between Shafts 12A and 12B, and that it be known as "Shaft 12C."

On motion of Commissioner BALDWIN, the recommendation of the Chief Engineer was approved by the Commissioners, and the said additional shaft ordered to be so located.

The Chief Engineer next made report, of this date, submitting a plan for the construction of the new Aqueduct in tunnel through Gould's Swamp, and recommended that, for the purpose of facilitating the prompt construction of the said tunnel, that the contractor be authorized to sink an additional shaft about thirty (30) feet deep at Station 648+50—that station being about seventy (70) feet north

of the present Shaft 11B; the said additional shaft to be known as "Shaft 11C."

On motion of Commissioner BARNES the plan submitted by the Chief Engineer was approved by the Commissioners, and the Secretary directed to have the same duly certified by the Commissioners and placed upon file, and the sinking of said additional shaft by the contractor was authorized, provided the same can be done within the limit of $5,000, an agreement to be made with the contractor therefor under Section 30 of the statute.

The Secretary presented the accounts of Messrs. George S. Greene, John Newton and Q. A. Gilmore for expenditures and professional services as members of the Board of Examining Engineers, and on motion of Commissioner BARNES the same were referred to the Committe of Finance and Audit for examination and report.

The Secretary next presented notices of lien filed by John Kelly against O'Brien & Clark, one for the sum of $1,000 for work and material furnished upon Section 9 of the new Aqueduct, and one for $1,020 for work and material furnished for Section 9 and Section B, and on motion of Commissioner BARNES the said notices of lien were ordered placed upon file.

A communication was received from Messrs. O'Brien & Clark, contractors, dated July 17th, with regard to the closing up of Sedgwick avenue near Shaft 22, and asking the aid of the Commissioners in having the said avenue opened for use in moving brick and cement for lining the Aqueduct tunnel.

On motion of Commissioner DOWD the communication was referred to the Committee on Construction.

Another communication was received from Messrs. O'Brien & Clark and Heman Clark, contractors, of this date, giving notice that they should hold the City liable for all loss and damage occasioned by the delay in payment of the monthly estimates for work done during the month of June.

On motion of Commissioner DOWD the communication was referred to the Committee of Finance and Audit.

Commissioner BARNES offered the following resolution, which was adopted:

*Resolved*, That the Chief Engineer be authorized to detail Inspectors to inspect brick or stone at the yards or quarry from which the same are supplied, provided that the contractors agree to allow the added expenses incurred by said Inspectors to be deducted from their estimates.

The Chief Engineer stated to the Commissioners that he was authorized by Mr. Joseph P. Davis to request the acceptance by the Commissioners of his resignation as Consulting Engineer of the Commission.

On motion of Commissioner BARNES the resignation of Mr. Davis was accepted by the Commissioners, and the Secretary directed to express to Mr. Davis their high appreciation of his professional skill and the valuable ser-

vice he has heretofore rendered to the Commission, and that his resignation was accepted with great regret.

The Chief Engineer next submitted to the Commissioners a communication from Deputy Chief Engineer Alphonse Fteley, stating that in consequence of the enfeebled condition of his health, he would be unable to resume active service for some time, and therefore, as he had previously tendered his resignation and it had not been accepted, he now asked leave of absence, without pay, until such time as his health would permit him to resume active duty.

Thereupon Commissioner SPENCER offered the following resolution:

*Resolved,* That the resignation of Deputy Chief Engineer Alphonse Fteley, tendered some time since in consequence of continued ill-health, be accepted; to take effect on the 31st instant; that this acceptance is subject to the expression of the Commissioners of their regret at parting with the service of Mr. Fteley, and a desire to avail themselves of the same in the capacity of Consulting Engineer at a future time when his restoration to health will permit, and that in the meantime and after the 31st inst. he shall be considered as Consulting Engineer of the Commission, with indefinite leave of absence, and without pay.

On motion of Commissioner RIDGWAY the above resolution was unanimously adopted by the Commissioners, and the Secretary directed to transmit a copy thereof to Mr. Fteley.

The Commissioners then adjourned to meet on Tuesday next, 27th inst., at 2 o'clock P. M.

JAMES W. McCULLOH,
*Secretary.*

---

The following are the By-Laws and Rules of Order adopted, as stated in the resolution on page 180 :

## BY-LAWS AND RULES OF ORDER

OF THE

## AQUEDUCT COMMISSIONERS.

### ARTICLE I.

#### SECTION 1.—MEETINGS OF THE COMMISSIONERS.

The meetings of the Commissioners shall be held at the office of the Aqueduct Commissioners in the City of New York, unless otherwise ordered.

A majority of the Aqueduct Commissioners shall constitute a quorum for the transaction of business; and the affirmative vote of four of the Commissioners shall be required for the adoption of any resolution or action by the Commission. Rules of order for the transaction of business at the meetings shall be adopted and observed.

#### SEC. 2.—STATED MEETINGS OF THE COMMISSIONERS.

Stated meetings of the Commissioners shall be held on Wednesday of each week, at 3 o'clock P. M., except during

the months July, August and September, when the hour of meeting shall be 2 o'clock P. M., of which meetings no notice shall be necessary.

SEC. 3.—Special meetings of the Aqueduct Commissioners may be held at any time and place, on the assemblage of all the Commissioners.

Special meetings may also be held on the written call and notice of the President; or, in his absence the Vice-President; or a majority of said Commissioners. A copy of such call and notice must be personally served upon each Commissioner whose name is not signed thereto, or a copy of the same must be left at or mailed to his residence, or place of business, twenty-four hours before the time named for said meeting in said call and notice.

## ARTICLE II.

### OFFICERS AND EMPLOYEES OF THE COMMISSIONERS.

The officers and employees of the Aqueduct Commissioners shall be as follows:

SECTION 1.—A President and Vice-President, who shall be elected from said Commissioners, and the official term of each shall be until the first stated meeting of the Commissioners in January of the year next succeeding the time of his election, and until his successor shall be elected.

SEC. 2.—A Secretary, an Auditor, a Purveyor and Property Clerk, and as many clerks, messengers and other employees in the general office of the Commissioners as they may deem necessary. Their respective terms of office

shall be during the will and pleasure of the said Commissioners. They shall be appointed and their salaries shall be fixed by the said Commissioners.

SEC. 3.—A Chief Engineer, two Principal Assistant Engineers, and such division and assistant and such other engineers, supervisors, inspectors and employees for the Engineer Corps as the Aqueduct Commissioners may deem necessary. They shall be appointed and their salaries shall be fixed by the said Commissioners, and their terms of office shall be during the will and pleasure of said Commissioners.

## ARTICLE III.

### COMMITTEES.

There shall be the following standing committees, who shall be elected from said Commissioners annually on the second Wednesday of January.

A majority of each of said committees shall constitute a quorum for the transaction of business, and the exercise of their powers as a committee.

SECTION 1.—A Committee of Finance and Audit, consisting of three Commissioners, who shall have the supervision of all vouchers, accounts and books of account, and all pay-rolls of the officers and employees of the Commission, and of other financial matters of the Commission; and who shall audit and report to the Board all expenditures by and claims against the Commission; and who shall also examine, consider and report upon all other matters referred to it by the Commissioners; and shall report weekly

to them its actions and proceeding. The general office of the Commission and the officers and employees therein shall be under their care and direction.

The Committee shall organize by the election of its Chairman and Vice-Chairman, and the adoption of all necessary rules for the transaction of business, and the Auditor shall be its Secretary, unless the Committee shall select one of their own number or some other employee of the Commission to act as Secretary.

SEC. 2.—A Committee on Construction, consisting of five Commissioners, that shall be an Executive Committee of the Aqueduct Commissioners, with full power of direction and supervision over the work of construction, and over the engineers, officers and employees engaged therein, and the officers and property in their charge, subject, however, to the authority and direction of the Aqueduct Commissioners at all times.

The orders of said Committee, through the Chief Engineer or a Principal Assistant Engineer, shall be observed and obeyed by the members of the Engineer Corps; and said Committee shall have the power to suspend any engineer or employee of said Corps, but such suspension and the reasons therefor shall be reported to the Aqueduct Commissioners, and be subject to their final direction in the premises.

Said Committee shall organize by the appointment of a Chairman, Vice-Chairman and Secretary, the latter officer to be selected from the members of the Committee or from the clerical force of the Commission without extra compensation, and the adoption of necessary rules for the transaction of its business; and a Clerk shall be assigned

to their service. Said Committee shall examine, consider and report upon all other matters referred to it by the Commissioners, and shall report to them weekly its actions and proceedings through its Chairman.

SEC. 3.—The Committee of Finance and Audit shall, until the second Wednesday in January, 1887, consist of Commissioners Dowd, Baldwin and Ridgway.

The Committee on Construction shall, until the second Wednesday in January, 1887, consist of Commissioners Spencer, Commissioner of Public Works, Barnes, Fish and Ridgway.

All vacancies in Committees shall be filled by a vote of the Commission.

SEC. 4.—An executive session or council of the Commissioners shall be held at any time on the request of the President or of a majority of any committee, or of three of the Commissioners; but no determination or conclusion of the Commissioners at such council shall be valid or of binding effect until approved or adopted by a majority vote of the Commissioners in open session.

## ARTICLE IV.

### DUTIES OF OFFICERS.

SECTION 1.—The President shall be the chief executive officer of the Commission, and shall preside at all meetings of the Commissioners when present, and direct and conduct the proceedings. He may at all times communicate with the Commissioners orally or in writing in re-

gard to any matters connected with the work and duties of the Commission that he shall deem important, and shall sign all contracts, leases, orders or other papers, as the President of the Commissioners, when so authorized and directed by the Commissioners; and may call any special meeting of the Commissioners.

Whenever the President shall sign any contract, lease or other document or paper in his official capacity, it shall be attested by the Secretary; and he shall perform such other duties as shall be authorized or assigned to him by the Commissioners, consistent with his position as the President of the Commission.

SEC. 2.—The Vice-President shall act, in case of the absence or inability of the President, with the same power and effect as the President.

SEC. 3.—The Secretary shall keep a record of the proceedings of all stated and special meetings of the Commissioners, and, subject to the direction of the Committee of Finance and Audit and the Committee on Construction, shall have the care and custody of all maps, plans, contracts, books, vouchers, reports to the Commissioners, and other documents and papers or copies thereof on file in the office of the Commission; and of the furniture and other property of the Commission in use in the office of the Commissioners, excepting such as are necessarily in the care and custody of the Chief Engineer or members of the Engineer Corps, and shall perform such other duties as he shall from time to time be directed by the said Commissioners.

SEC. 4.—The Auditor shall have, under the Committee of Finance and Audit and the Secretary, the care and custody of all accounts and books of account, vouchers, documents and papers pertaining to the financial affairs of the Commissioners, and shall correctly keep the books of account of the Commissioners, and shall carefully examine and consider all accounts, vouchers and claims for or against the Commissioners, and shall certify and report the same to the Committee of Finance and Audit for its consideration, approval and report to the Commissioners, and shall act as Secretary to said committee, unless the committee shall select some other employee or one of their own number to act as Secretary; and shall perform all other duties as directed by said committee or the Commissioners.

## ARTICLE V.

### ENGINEER CORPS.

SECTION 1.—The Engineer Corps of the Aqueduct Commissioners, its organization, and the officers and employees thereof, shall be at all times subject to the general orders and directions of the Aqueduct Commissioners and the Committee on Construction, and be governed by such rules and regulations as they may from time to time establish for the government of the Engineer Corps, and for the care of the property of the Commission, and all positions in said Corps are held at the pleasure of said Commissioners.

SEC. 2.—The Engineer Corps shall consist of the fol-

lowing officers and employees, whose relative rank shall be :

1. Chief Engineer.
2. Principal Assistant Engineers.
3. Division Engineers.
4. Assistant Engineers and Sub-division Engineers.
5. Draughtsmen.
6. Rodmen.
7. Chainmen.
8. Inspectors.
9. Janitors, Overseers and Messengers.
10. Watchmen, Drivers, Laborers and others in a subordinate capacity.

THE CLERICAL FORCE.

1. Chief Clerk to the Chief Engineer.
2. Assistant Clerks.

SEC. 3.—DUTIES OF THE CHIEF ENGINEER.

The Chief Engineer is the head and chief of the Engineer Corps, and his orders as such shall be observed and obeyed by all in the corps. He is responsible directly to the Aqueduct Commissioners for the design and execution of all the engineering plans and construction work of the Commission.. He must direct all surveys ; supervise all construction work, monthly measurements and estimates; certify all estimates for payments on contract or

other work, all bills and accounts for expenditures of the Engineer Corps, and perform such other duties incident to his office as shall be assigned to him by said Commissioners. He shall have, under the direction of the Committee on Construction, the general charge and custody of, and be accountable for, the property and premises of every kind in use by the Engineer Corps of the Commission, and special charge of the Engineer's offices in New York, and of all records, maps and plans and property therein. He shall have power to suspend any engineer or employee in the corps for cause, or whenever the service of such engineer or employee are no longer required for the work of the Commission, and shall immediately report to the Commissioners every such suspension and his reasons therefor.

The Chief Engineer may report to the Committee on Construction any matter upon which he desires advice or direction; and said Committee is hereby authorized in the exercise of their judgment to counsel the Chief Engineer in the matter or to report to the Commissioners the facts in the case, with such recommendations as it shall deem proper in the premises.

### Sec. 4.—Principal Assistant Engineers.

The Principal Assistant Engineers are the Supervising Engineers of Construction and other work in the field, and are the immediate superiors of the Division Engineers and their parties. They shall have the charge and supervision in the respective divisions of the work of survey and alignment upon the Aqueduct and within the tunnels and shafts thereof, and of the parties engaged therein under the Division Engineers; and they shall be held re-

sponsible for the correctness and accuracy of said work. They must communicate with and report to the Chief Engineer, and the Chief Engineer shall report the same to the Committee on Construction, at least once a week, in regard to the work in their charge; and they are authorized to communicate with them in regard to any important matter within their line of duty wherein they require advice or direction. They shall examine and certify to the Chief Engineer all measurements and estimates for payments to contractors.

All plans, instructions and orders that are to be executed by the Division Engineers in the construction work shall be transmitted by the Chief Engineer *in duplicate* to the Principal Assistant Engineers, and they shall supervise and direct the Division Engineers in their execution. If a difference of opinion as to the execution of any plans, orders and instructions of the Chief Engineer shall arise between a Principal Assistant Engineer and a Division Engineer, the former shall immediately report the same to the Chief Engineer, and the Chief Engineer shall promptly give his orders in reference thereto, and the same shall be obeyed. All other orders or instructions that they receive from the Committee on Construction or the Chief Engineer they shall execute promptly. Their principal duties shall be in the field, that by constant, personal examination they can know at all times, and be able to keep the Chief Engineer and the Committee on Construction constantly and fully informed in regard to the condition and progress of the work.

The Principal Assistant Engineers shall devote their whole time and attention to the discharge of their field and office duties. They are hereby authorized to and may

suspend for cause, any engineer or employee under their command, reporting such suspension, and the facts and cause thereof, immediately to the Chief Engineer and to the Committee on Construction. They shall have charge of the property of the Commission in the headquarters of the Engineer Corps at Tarrytown, and their office shall be at said headquarters; and they shall have such assistants assigned to them and under their immediate command as shall enable them to perform the duties herein prescribed.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Tuesday, July 27, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works*, *Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.
Also *Chief Engineer* CHURCH.

The Commissioners met and went into Executive Council for the consideration of the recommendations of the Committee on Construction in relation to the employment of Principal Assistant Engineers, and of a reduction in the number of Division Engineers.

Upon resuming the open session President SPENCER presented the following resolutions:

1st. *Resolved*, That Mr. J. Imbrie Miller and Mr. Charles Pugsley be appointed principal Assistant Engineers from this date.

*Resolved*, That the rate of pay of the principal Assistant Engineers shall be at the rate of $400 per month ($4,800 per annum), and that of Division Engineers, $250 per month ($3,000 per annum).

This resolution was adopted by the unanimous vote of all the Commissioners.

2d. *Whereas*, In the reorganization of the Engineering Department it is deemed best for the more economic administration of the work to merge the now existing seven divisions into five divisions, thereby rendering unnecessary the services of two Division Engineers; therefore,

*Resolved*, That from and after August 1, 1886, the services of Division Engineers Gould and Watkins be and they are hereby dispensed with.

This resolution was adopted by the affimative vote of all the Commissioners, excepting Commissioner Dowd, who voted in the negative.

3d. *Resolved*, That the question of an accurate division of the Aqueduct work into five divisions be referred to the Committee on Construction for consideration and report to the Commissioners, and also the assignment of the Division Engineers to the same, with power.

This resolution was adopted unanimously.

4th. *Resolved*, That the selection of the remaining members of the force on the line be referred to the Committee on Construction to report to the Commission.

This resolution was also unanimously adopted.

Commissioner BARNES offered the following resolution, which was unanimously adopted:

*Whereas*, In the reorganization of the Engineer Corps of this Commission it has become necessary to reduce the number of Division Engineers from seven to five, and to dispense with the services of two of them; therefore, be it

*Resolved*, That this Commission dispenses with the services of Messrs. Gould and Watkins with great regret, they having performed their duties as such Division Engineers with energy and fidelity, and we tender to them the assurance of our entire confidence and high esteem, and that copies of this resolution be furnished to said Engineers.

Commissioner BALDWIN offered the following resolution, which was unanimously adopted:

*Resolved*, That if it be hereafter found necessary to increase the Engineer Corps beyond the number now fixed upon, such increase shall be made, so far as practicable, from amongst those who have heretofore been employed by the Commissioners, and proved competent and worthy of such employment.

The PRESIDENT then officially announced the sudden death of Hubert O. Thompson, Esq., formerly Commissioner of Public Works of this city, and an *ex-officio* member of this Commission, whereupon Commissioners

Squire, Dowd and Baldwin were appointed a Committee to draft suitable resolutions for adoption at the regular meeting of the Commissioners to-morrow, 28th inst.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, July 28, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works*, *Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of July 21st and the Special Meeting of July 27th were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills included in vouchers Nos. 1891 to 1902, and on motion of Commissioner DOWD said vouchers were approved by the Commissioners, and ordered certified to the Comptroller for payment.

The following resolutions were presented from the Committee on Construction:

1st. *Whereas*, The services of Division Engineers Gould and Watkins were voted to be dispensed with on the 31st of July, and it seems to be desirable that the Chief Engineer should have their services until the 15th of August; be it

*Resolved*, That the services of Division Engineers Gould and Watkins shall be extended to and terminate on August 15, 1886, instead of July 31st.

On motion of Commissioner BARNES the above resolution was unanimously adopted.

2d. *Resolved*, That the subject of making arrangements for commencing the work of construction of the necessary additional dams for storing the Croton River water be referred to the Committee on Construction, with the request that they report what, in their opinion, is the proper action to be taken by the Commission, at the next Stated Meeting.

On motion of Commissioner BARNES the above resolution was unanimously adopted.

3d. *Whereas*, The Commission on June 16th recommended the suspension of the force at work on Jerome Park Rerservoir,

*Resolved*, That the Chief Engineer report to this Commission at its next meeting:

1st. Whether any of such force are at present employed.

2d. Where they are employed, and upon the performance of what duty.

3d. How soon such work will be completed.

4th. The services of what members of the corps can and should be dispensed with.

On motion of Commissioner FISH the above resolution was also unanimously adopted.

Commissioner SQUIRE, on behalf of the Special Committee appointed to prepare suitable resolutions with regard to the death of Hubert O. Thompson, Esq., submitted the following:

*Resolved*, That the sudden death, on the 26th inst., of Hubert O. Thompson, formerly Commissioner of Public Works, and as such an *ex-officio* member of this Commission, demands from us fitting recognition of his valuable services in connection with the water supply of this City.

As Commissioner of Public Works Mr. Thompson became fully aware of the City's requirements for water, and with intelligent and comprehensive effort bent his remarkable energies to the procurement, not only of that which would give prompt relief to her present necessities, but an abundant supply to meet her future wants, and further her progress and prosperity for many years to come. To that end he gathered much of the information which aroused the public interest, guided the public mind and aided in obtaining the legislation which gave to this Commission its existence and its powers, and as a member of

the Commission he contributed most valuable aid and counsel in the organization and furtherance of the great work now in progress. For service such as his in this respect the City owes to him this recognition of his eminent service.

*Resolved,* That this tribute to his memory be entered upon the minutes of this Commission, and that an engrossed copy thereof be transmitted to his bereaved family, with the assurance of our sincere sympathy in their great bereavement.

On motion of Commissioner BARNES, seconded by Commissioner BALDWIN, the above resolutions were adopted unanimously, and the Secretary directed to transmit a copy thereof to the family of the deceased.

The PRESIDENT of the Board submitted the resignation of A. A. Horne, Esq., Assistant Engineer, to take effect August 1, 1886.

On motion of Commissioner RIDGWAY the resignation was accepted and ordered placed upon file.

The Secretary submitted a communication from Brown, Howard & Co., contractors, dated July 23d, in relation to delays in the payment of their monthly estimates for work done upon Sections 2 to 5, and giving notice that they should hold the City responsible for all damages arising from such delay.

On motion of Commissioner FISH the communication was referred to the Committee of Finance and Audit, and

the Secretary directed to transmit a copy thereof to the Comptroller.

Commissioner BARNES offered the following resolution:

*Resolved*, That Maurice A. Viele be appointed Chainman on the Fifth Division.

On motion of Commissioner FISH the matter was referred to the Committee on Construction.

Commissioner RIDGWAY offered the following resolution:

*Resolved*, That Charles B. Nooney and J. N. Hayward Cornell be appointed Chainmen in the Engineer Corps of this Commission.

On motion of Commissioner FISH this resolution was also referred to the Committee on Construction.

Commissioner RIDGWAY then offered the following resolution:

*Resolved*, That John C. Sheehan, of New York, be and he is hereby appointed Secretary of this Board of new Aqueduct Commissioners in place of James W. McCulloh, of New Jersey, removed, to take effect from the 1st day of August next.

Commissioner BALDWIN moved to lay the resolution on the table, which was lost by the following vote:

*In the affirmative—Commissioners Spencer, Dowd and Baldwin.*

*In the negative—The Commissioner of Public Works, and Commissioners Barnes, Ridgway and Fish.*

Commissioner BALDWIN then moved that the Commissioners adjourn, which motion was lost, Commissioner Baldwin alone voting in the affirmative.

Commissioner BALDWIN next moved that the resolution be referred to the Committee of Finance and Audit, which motion was lost, Commissioners Spencer, Dowd and Baldwin voting in the affirmative; the Commissioner of Public Works and Commissioners Barnes, Ridgway and Fish voting in the negative.

President SPENCER called Vice-President Dowd to the chair, and then addressed the Commissioners at length, protesting earnestly against the removal of the Secretary, and stating the reasons why he felt it his duty, in the interest of the City, to ask that the resolution be not adopted.

Commissioner RIDGWAY then called for the vote upon the original resolution, and it was adopted by the affirmative vote of the Commissioner of Public Works and Commissioners Barnes, Ridgway and Fish; Commissioners Spencer, Dowd and Baldwin voting in the negative.

Commissioners DOWD and BALDWIN asked permission to enter upon the minutes written protests against the removal of the Secretary.

Commissioner FISH objected to giving such permission until after the protests shall have been submitted to the other Commissioners, and Commissioners DOWD and BALDWIN stated that they would prepare a protest for submission at the next regular meeting.

Commissioner SPENCER then urged that in view of the necessity of completing promptly the work in connection with the proceedings to acquire the property rights for the dams and reservoirs upon the Croton River, and for additional lands in the City of New York, and in the preparation of the contracts for the construction of said dams, reservoirs and Gate Houses, that James W. McCulloh be employed until October 1st to complete said work, and that he be detailed for that purpose as Special Assistant to the Chief Engineer, and offered the following resolution.

*Resolved*, That James W. McCulloh be and he is hereby employed from the 1st of August until not later than the 1st of October next as Special Assistant to aid the Chief Engineer in preparing the maps, descriptions and other matters necessary and proper for the proceedings to acquire the property rights necessary for the construction of the dams and reservoirs upon the Croton River; of additional lands in the Twelfth Ward of this city for the Aqueduct and its appurtenances near the High Bridge, and for the Gate House at One Hundred and Thirty-fifth street and Convent avenue, and also to acquire the fee simple in certain land upon the line of the Aqueduct, between Croton Dam and the last-mentioned Gate House, and in the preparation of the contracts for the construction of said dams, reservoirs and Gate House, with compensation at the rate of $6,000 per annum.

After discussion the resolution was adopted by the affirmative vote of Commissioners Spencer, Dowd, Com-

missioner of Public Works, Commissioners Baldwin, Barnes and Fish; Commissioner Ridgway voting in the negative.

The Commissioners then adjourned.

JAMES W. McCULLOH,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, August 4, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, BALDWIN, BARNES, RIDGWAY and FISH.
Also *Chief Engineer* CHURCH.

The minutes of the Stated Meeting of July 28, 1886, were read, amended and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos. 1909 to 1927 inclusive; and, on motion of Commissioner DOWD, the said vouchers were approved and ordered certified to the Comptroller for payment.

The Committee also reported in favor of the adoption of the following resolution:

*Resolved*, That W. W. Proctor, the Purveyor, be authorized and directed to sell the pony now in the Tarry-

town stables and report to the Committee of Finance and Audit the amount received for the same.

By request of Commissioner DOWD, the said resolution was withdrawn.

The Committee also reported in favor of the adoption of the following resolution:

*Resolved*, That all requisitions for supplies which are now approved by the Secretary shall hereafter be approved by the Chairman of the Committee of Finance and Audit.

After some discussion, Commissioner FISH moved the adoption of the resolution, which was lost by the following vote: In the affirmative, Commissioners Dowd and Baldwin; in the negative, Commissioners Barnes, Ridgway and Fish; the President not voting.

The Committee on Construction submitted the following report, dated August 4, 1886:

" *To the Aqueduct Commissioners:*

Gentlemen,—The Committee on Construction report as follows:

That, after due consideration, the Committee have divided the line of the Aqueduct from Croton Lake to the Reservoir in Central Park into five divisions, as follows:

The First Division includes Sections 1, 2, 3 and such part of Section 4 as will include Shaft Zero, and Shafts No. 1, 2, 3, 4, 5 and 6, including the work of the Gate House and at all of said shafts and their respective head-

ings from Croton Lake to a point in Section 4 south of Shaft No. 6 as shall include the work from the southerly heading of Shaft No. 6.

The Second Division includes the remainder of Section 4 not included in the First Division and Sections 5 and 6, including Shafts No. 7, Pocantico Open Cut and Blow-off, and Shafts or Portals No. 8A and 8B, 9A and 9B, Shaft No. 10, No. 11A and 11B, 12A and 12B, and the work at said shafts and cuts, and all the headings of the same.

The Third Division includes Sections 7 and 8 and Shafts No. 13, 14, 15, 16 and 37, and the work and headings of the same.

The Fourth Division includes Sections 9 and 10 and all of Section 11, except Shafts No. 24, 25 and 26, including Shafts No. 18A and 18B, and the portal and cut between them, Shafts 18½, 19, 19½, 20, 21, 21½, 22 and 23, and the work and headings of the same.

The Fifth Division includes Shafts No. 24, 25 and 26 of Section 12, and all of Section 13, extending from and including Shaft No. 24, and thence to the Reservoir in Central Park, including the Gate Houses at Central Park, and at One Hundred and Thirty-fifth street and Shafts No. 24, 25, 26, 27, 28, 29, 30, 31 and 32, and the proposed pipe line from One Hundred and Thirty-fifth street to Central Park.

Your Committee have also assigned to the general supervision and care of Principal Assistant Pugsley all of said line of Aqueduct and Aqueduct work from and including Shaft No, 15 to and including the Gate House in Central

Park, and to Principal Assistant Miller the remainder of the Aqueduct line commencing with and including Shaft No. 14, and thence north to Croton Lake.

All of which is respectfully submitted,

(Signed) JAMES C. SPENCER,
*Chairman.*"

Whereupon Commissioner SPENCER moved the adoption of the following resolution:

*Resolved,* That the five divisions of the Aqueduct line and work be made and constituted as reported and recommended by the Committee on Construction this day, and the general supervision of the same be assigned and committed to the Principal Assistant Engineers, as in said report stated, and that said report be spread upon the minutes.

The resolution was unanimously adopted.

The Committee also made the following report:

" NEW YORK, August 4, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—The Committee on Construction, after examination and consideration of the Contract Drawings for the Gate House at One Hundred and Thirty-fifth street and Convent avenue approve of the same and commend them to the Commissioners for final approval and adoption, and also recommend that the sum of $450 be appropriated for the purpose of having them photo-lithographed.

(Signed) JAMES C. SPENCER,
*Chairman.*"

On motion of Commissioner SPENCER the report of the Committee was unanimously adopted.

The Committee next made the following report:

" NEW YORK, August 4, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—On the verbal report of the Chief Engineer to the Committee on Construction that in the reorganization of the Engineer force, as provided in the By-Laws, that seven (7) additional Chainmen will be required.

The Committee decided to report the following persons to the Commissioners for appointment, namely:

Maurice A. Viele,
Charles B. Nooney,
J. N. Hayward Cornell.

(Signed) JAMES C. SPENCER,
*Chairman.*"

After some discussion the report of the Committee was adopted; Commissioner Dowd voting in the negative.

The Secretary submitted a notice received from the Comptroller, under date of July 31st, 1886, of the issue of warrants to the amount of $1,100 for payment of vouchers not certified to by the Aqueduct Commissioners, and relating to the Manhattan Island Section.

The same was ordered placed on file and entered on the books of the Commission.

The Secretary next presented a notice of lien, dated July 21, 1886, filed by The Okonite Company against O'Brien & Clark, contractors, for the sum of $354.12, for

materials furnished upon Section 12, Shafts 20 and 21 of the new Aqueduct, and the same was referred to the Committee of Finance and Audit.

Commissioner SPENCER presented the opinion of the Counsel to the Corporation, wherein he states that he is of the opinion that the Comptroller has the right to make such reasonable examinations as may be necessary to enable him to determine whether the amounts certified to be due each month to the contractors are erroneous by reason of improper allowances, and the same was referred to the Committee of Finance and Audit.

Commissioner RIDGWAY presented the following preamble and resolution:

*Whereas*, The Committee of Examining Engineers, consisting of Generals Greene, Newton and Gilmore, that investigated the charges máde against the Chief Engineer by Mr. Craven, the late Construction Engineer, reported to this Commission, under date of July 14th, exonerating the Chief Engineer; and

*Whereas*, It is desirable that such report should reach the public, therefore,

*Resolved*, That the Secretary be directed to cause twenty-five hundred copies of the said report, exclusive of the testimony, to be printed for distribution, at an expense not to exceed three hundred dollars.

On motion of Commissioner RIDGWAY, the preamble and resolution was unanimously adopted.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, August 11, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of August 4, 1886, were read, amended and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos. 1928 to 1940 inclusive, and on motion of Commissioner DOWD the said vouchers were approved and ordered certified to the Comptroller for payment.

The Committee on Construction submitted the following report, dated August 11, 1886:

"*To the Aqueduct Commissioners:*

Gentlemen,—The Committee on Construction report the following resolutions for adoption by the Commissioners:

*Resolved*, That the Committee recommend to the Commission at the next Stated Meeting that the expenses of the Tarrytown office be reduced, and that the services of Edward D. Johnston, in charge of the cement machine at that office, be dispensed with on the 15th of August, and that on and after that date Mr. W. H. Taylor, now assisting Mr. Johnston there, take charge of the machine and the testing of cement under the supervision of the Principal Assistant Engineer, Mr. Miller.

*Resolved*, That Joseph Ryan, Sarsfield Kennedy, Robert Dewitt and Cornelius J. Lynch be and they are hereby appointed Chainmen.

*Resolved*, That John F. O'Brien be and he is hereby appointed an Inspector of Masonry, to be called into service whenever required by the Chief Engineer.

(Signed) JAMES C. SPENCER,
*Chairman.*"

On a division of the question the first resolution was unanimously adopted.

The second resolution was adopted by the following vote:

*In the affirmative—Commissioners Spencer, Baldwin, Barnes, Ridgway and Fish.*

*In the negative—Commissioner Dowd.*

The third resolution was adopted by the affirmative vote of Commissioners Spencer, Baldwin, Barnes, Ridgway and Fish; Commissioner Dowd voting in the negative.

The Committee on Construction also submitted the following report:

" NEW YORK, August 11, 1886.

*To the Aqueduct Commissioners*:

The Committee on Construction report that they have assigned the Division Engineers to their divisions in accordance with the views of the Chief Engineer in the report attached, and we report the same for confirmation and approval, as follows:

Charles S. Gowen, assigned to First Division.
J. M. Wolbrecht, assigned to Second Division.
Alfred Craven, assigned to Third Division.
J. B. McIntyre, assigned to Fourth Division.
E. Wegmann, Jr., assigned to Fifth Division.

(Signed) JAMES C. SPENCER,
*Chairman.*"

On motion of Commissioner SPENCER the report of the Committee was unanimously adopted.

The Committee also made the following report:

" NEW YORK, August 11, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—The Committee on Construction report the following officers to be attached to the several divisions under the rank of Division Engineers as recommended by

the Chief Engineer, excepting only one Assistant Engineer on the Second Division, which we leave vacant at present.

(Signed) JAMES C. SPENCER,
*Chairman.*"

FIRST DIVISION.

*To be Assistant Engineers.*

1. Geo. B. Burbank, now Assistant Engineer.
2. Robert Ridgway, now Transitman.
3. H. R. Wheeler, now Leveler.

*To be Rodmen.*

1. E. S. Larned, now Rodman.
2. George Endicott, now Rodman.
3. Langdon C. Easton, now Chainman.
4. A. H. Porter, Jr., now Rodman.
5. E. E. De Lancy, now Rodman.

*To be Chainmen.*

1. A. W. Kellogg, now Chainman.
2. Jos. T. Underhill, now Chainman.
3. Ira Ganong, now Chainman.
4. Jno. J. Conway, now Chainman.

*To be Laborers.*

1. Jno. Gallery, now Laborer.

SECOND DIVISION.

*To be Assistant Engineers.*

1. J. A. Lockwood, now Transitman.
   B. R. Value, now Transitman.

*To be Rodmen.*

1. A. B. Satterlee, now Leveler.
2. A. J. Lamb, now Rodman.
3. W. E. Horton, now Rodman.
4. G. H. Cunningham, now Leveler.

*To be Chainmen.*

1. G. C. Marrin, now Chainman.
2. Lincoln Frank, now Chainman.

*To be Laborers.*

1. Jno. Fagan, now Laborer.
2. William Gray, now Laborer.

THIRD DIVISION.

*To be Assistant Engineers.*

1. F. H. Baldwin, now Assistant Engineer.
2. J. M. Stewart, now Transitman.
3. George R. Olney, now Transitman.

*To be Rodmen.*

1. F. N. Speyer, now Leveler.
2. R. G. Rood, now Rodman.
3. R. C. Nicholas, now Rodman.
4. C. P. Bonnett, now Leveler.
5. R. C. Rathborne, now Rodman.

*To be Chainmen.*

1. Joseph Ryan.
2. Sarsfield Kennedy.
3. Cornelius J. Lynch.
4. Robert Dewitt.
5. Duncan McRae Livingston.

*To be Laborers.*

1. John Wood, now Laborer.
2. Charles Vosburgh, now Laborer.

FOURTH DIVISION.

*To be Assistant Engineers.*

1. S. F. Morris, now Assistant Engineer.
2. P. K. Yates, now Assistant Engineer.
3. Walter McCulloh, now Assistant Engineer.

*To be Rodmen.*

1. C. F. Ferrer, now Leveler.
2. F. W. Carpenter, now Rodman.
3. E. F. Playle, now Rodman.
4. Henry I. Dodge, now Rodman.
5. W. T. Ross, now Chainman.

*To be Chainmen.*

1. C. E. Richards, now Rodman.
2. A. Peddie, now Chainman.
3. L. S. Horne, now Chainman.
4. J. N. H. Cornell, now Chainman.
5. C. B. Nooney, now Chainman.

*To be Laborers.*

1. John Connors, now Laborer.
2. George C. Glatt, now Laborer.

FIFTH DIVISION.

*To be Assistant Engineers.*

1. W. R. Warfield, now Assistant Engineer.
2. A. C. Chenoweth, now Transitman.
3. C. G. Douw, now Rodman.

*To be Rodmen.*

1. H. C. Alden, now Rodman.
2. Ira A. Shaler, now Leveler.
3. C. C. V. Powers, now Chainman.
4. G. E. Washburn, now Chainman.
5. Richard Baldwin, now Rodman.

*To be Chainmen.*

1. F. E. Waldron, now Chainman.
2. John McKeon, now Chainman.
3. Jas. J. Chrystal, now Chainman.
4. Jas. McCarty, now Chainman.
5. Jas. Walstead, now Chainman.
6. M. A. Viele, now Chainman.

*To be Laborers.*

1. John Gorman, now Laborer.
2. John Surrigan, now Laborer.
3. Arthur L. Beatty, now Laborer.

On motion of Commissioner SPENCER, the report of the Committee was adopted.

Chief Engineer Church then stated to the Commissioners that Robert H. Moore, Assistant Engineer, had verbally tendered his resignation, to take effect on the 1st of September.

On motion of Commissioner RIDGWAY, the resignation was accepted, to take effect on the 15th inst.

The Secretary submitted a notice received from the Comptroller, under date of August 7, 1886, of the issue of a warrant for the payment of a voucher in favor of

Spencer G. McNary for the sum of $208.82, relating to the Westchester County Section, and not certified to by the Aqueduct Commissioners, and leaving a balance to the credit of the "Additional Water Fund" of $2,057,917.89; which was ordered placed upon file and entered upon the books of this Commission.

Commissioner RIDGWAY presented the following resolution:

*Whereas*, The Comptroller requires the Engineers and other men on the line of the Aqueduct to leave their work and come to the City to draw their pay; and

*Whereas*, Such absence from the work is injurious to the public service and causes delay; therefore, be it

*Resolved*, That the Comptroller be requested to forward the pay of the Engineer Corps and Inspectors to them upon the work.

On motion of Commissioner RIDGWAY, the resolution was unanimously adopted.

Commissioner FISH offered the following resolution:

*Resolved*, That the Secretary be directed to furnish this Commission at the earliest possible day a list of all the contracts for work along the line of the Aqueduct given out by the Commission prior to the appointment of the Commissioners as provided by Chapter 337, Laws of 1886, passed May 13, 1886; such list to give the name of each and every contractor; the object of such contract; the amount of the same; whether awarded to the lowest bidder; when recom-

mended by the Commission; the date of the acceptance of the same; and the vote of each Commissioner on such acceptance; also similar information as to all contracts for work on line of Aqueduct awarded since the passage of the aforesaid law.

After some discussion the resolution, on the motion of Commissioner FISH, was adopted.

Commissioner FISH also offered the following resolution:

*Resolved*, That the Secretary be requested to furnish this Commission at his earliest convenience a list of the various parties of whom the Commission has purchased lands for Aqueduct purposes by *private negotiation;* giving the dates of such purchases; the amount and a discription of the property taken in each case; the amounts paid by the Commission for such lands and incidental expenses connected therewith, and the vote of the Commissioners on each of such cases.

On motion of Commissioner FISH the resolution was adopted.

Commissioner FISH also offered the following preamble and resolution:

*Whereas*, The Corporation Counsel submitted to this Commission, under date of February 6, 1886, an opinion with reference to the jurisdiction of the Commissioners of Accounts in connection with certain examinations of the accounts of this Commission, denying the right of the Commissioners of Accounts

to make such examination, from which opinion the following is taken:

"In my opinion the Aqueduct Commissioners are not a department or office of the City and County government within the meaning of this clause.

It should be noted that the Act of 1884 merely alters the phraseology of a section of the Consolidation Act, and the amended section is to be read as a part of that act.

The Aqueduct Commissioners derive their authority from another act, to wit: Chapter 490 of the Laws of 1883, and although it has been recently held that in the discharge of their functions they are the agents of the City and not the agents of the State, they are not, in my opinion, a department or office of the City and County government.

The Commissioners of Accounts, under the same section, are given authority to make 'such other examinations as the said Commissioners may deem for the best interests of the City and County.'

In my opinion, this grant of power is to be restricted by the words preceding in the same section, and the authority to make such examinations as they may deem is restricted to the departments and offices of the City and County government."

*And whereas*, It is important for this Commission that its books and records should be open to public inspection; therefore,

*Resolved*, That this Commission, notwithstanding the opinion of the Corporation Counsel denying the right of the Commissioners of Accounts to insist upon an

examination of the accounts of this Commission, authorize the said Commissioners of Accounts hereafter to make such examinations as they desire.

On motion of Commissioner FISH the resolution was adopted.

Commissioner BARNES offered the following resolution:

*Resolved*, That the President be requested to communicate with Mr. H. S. Craven, late Construction Engineer, and request him to return at once all the books, papers, documents or other property in his possession or under his control and belonging to this Commission.

On motion of Commissioner BARNES the resolution was adopted.

Commissioner FISH offered the following resolution:

*Resolved*, That the Chief Engineer be requested to notify the Engineers mentioned in the report of the Committee on Construction of the respective districts to which they have been assigned.

The resolution was adopted unanimously.

On motion of Commissioner BARNES, the Commissioners adjourned to meet on Friday, the 13th inst., at 2 o'clock P. M.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Friday, August 13, 1886, at 2 o'clock P. M.

---

Present:

*The Commissioner of Public Works* and *Commissioners* SPENCER, DOWD, BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH.

The minutes of the Stated Meeting of August 11th were read and approved.

The Committee of Finance and Audit reported their examination and audit of the monthly estimates of work done by the contractors during the month of July, amounting to $335,108.76, and the certification of vouchers Nos. 1941 to 1954 therefor, to the Comptroller for payment.

The Committee on Construction submitted the following report:

"*To the Aqueduct Commissioners:*

Gentlemen,—The Chief Engineer requires additional Inspectors of Masonry, and the Committee on Construction recommend for appointment William A. Shepard, John T. Havanagh and William C. Anderson, all of New York, to be called into service as required by the Chief Engineer.

NEW YORK, August 13, 1886.

(Signed) JAMES C. SPENCER,
*Chairman.*"

The report of the Committee was adopted by the affirmative vote of all the Commissioners except Commissioner Dowd, who voted in the negative.

The Chief Engineer then submitted the following communication out of the regular order of business:

"NEW YORK, Aug. 11, 1886.

*To the Honorable the Committee on Construction of the Aqueduct Commission:*

Gentlemen,—Contractors in several cases having failed to obey instructions given for improving the light and ventilation of tunnels in accordance (to clause F29) of the specifications; it becomes necessary to enforce conformity to said orders to secure adequate light and ventilation to do engineering work efficiently and to facilitate construction and inspection of tunnel masonry lining.

By clauses J and P of the contract and specifications, the Commissioners can notify the contractors to 'discontinue the work, or any part thereof.'

The Commissioners can order work to be discontinued at some of the shafts until the orders to improve light and ventilation are complied with, or they can cause such improvements to be made and deduct the cost thereof from payments to be made to said contractors.

Awaiting your pleasure and instruction in this matter, I remain,

Very respectfully yours,

(Signed) B. S. CHURCH,
*Chief Engineer.*"

Commissioner BARNES offered, in connection therewith, the following resolution, which was unanimously adopted:

*Resolved*, That the communication of the Chief Engineer be referred to the Counsel to the Corporation, with a request that he give his opinion thereon, and as soon as such opinion on the question of the power of the Chief Engineer to enforce his directions and requirements with regard to ventilation and lighting the tunnels shall have been received, the Chief Engineer is hereby authorized to take such action as he may deem proper in the premises, and, if necessary, stop the work in such of the underground workings as may require ventilation and lighting arrangements to be introduced, and proceed to put in all necessary lighting and ventilating apparatus, not to exceed the sum of $5,000 on each section, and charge the cost of the same to the contractors on whose sections the same may be so introduced.

The Chief Engineer also submitted the following communication:

"NEW YORK, Aug. 13, 1886.

*To the Honorable the Aqueduct Commissioners:*

Gentlemen,—I respectfully request that Mr. E. D. Johnston, whose services in charge of the cement tests at the Tarrytown office were to be dispensed with on the 15th inst., be retained until September 1st to enable him to complete his reports and close up his work on the same.

Very respectfully,

(Signed) B. S. CHURCH,

*Chief Engineer.*"

Whereupon Commissioner BALDWIN moved that the recommendation of the Chief Engineer be complied with, and the same was lost by the following vote:

*In the affirmative—Commissioners Spencer, Dowd and Baldwin.*

*In the negative—Commissioners Barnes, Ridgway and Fish.*

A communication from the Chief Engineer, addressed to the Commissioners, was received and ordered placed upon file; and, in connection therewith, Commissioner SPENCER offered the following resolution, which was unanimously adopted:

*Resolved*, That, in consequence of the reorganization of the Engineer Corps, the Chief Engineer reports that the services of the following named officers are no longer required, and they are honorably discharged

from the service of the Commission, as of the 15th day of August, 1886.

Royal Chapin, Assistant Engineer;
Thomas D. Whistler, Assistant Engineer;
Henry H. Bowly, Transitman;
Louis P. De Luze, Leveler;
Alfred H. Renshaw, Leveler;
Gustave Cure, Chainman;
Addis E. Carr, Chainman;
John P. R. Taafe, Chainman;

and Mr. W. B. Swan, Assistant Engineer, is discharged from the service of the Commission, to take effect as of the 1st day of September, 1886.

The Secretary submitted the following report:

" AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, 280 BROADWAY,
NEW YORK, August 13, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—In compliance with a resolution offered by Commissioner Fish on the 11th inst. and adopted by your Honorable Body, I herewith submit a report giving the names of the various parties of whom the Aqueduct Commissioners have purchased lands or an interest in lands for Aqueduct purposes by private negotiation, when such purchases were made, the amount and the description and quantity of property so taken.

| | | |
|---|---|---|
| 1885. | | |
| Mch. 18. | Parcel 26, 0.121 acres, temporary easement, in the Twenty-fourth Ward, and for damages, to Gulian L. Dashwood..... | $4,340 00 |

| | | | |
|---|---|---|---|
| June 3. | Parcel 705, 5.721 acres land in fee, in Westchester County, to Henry Welger | | $3,500 00 |
| July 29. | Parcels 549, 550 and rights, 1.798 acres land in fee, in Westchester County, to Thomas C. Edwards | | 3,000 00 |
| Sept. 15. | Parcel 41, 0.257 acres land in fee, Twenty-fourth Ward. | | |
| | Parcel 45, 2.611 acres land in fee, Twenty-fourth Ward. | | |
| | Parcel 42, 0.146 acres, temporary easement, Twenty-fourth Ward. | | |
| | Parcel 43, 0.036 acres, temporary easement, Twenty-fourth Ward. | | |
| | Parcel 44, 0.076 acres, temporary easement, Twenty-fourth Ward. | | |
| | Parcel 46, 0.283 acres, easement in perpetuity, Twenty-fourth Ward, to Saml. L. M. Barlow | $14,100 32 | |
| | Interest 1 year and 8 days, 6 % | 864 56 | |
| | Damages to adjoining property | 6,750 00 | |
| | | | 21,714 88 |
| Oct. 16. | Parcel 57, 2.222 acres, easement in perpetuity, Twenty-fourth Ward, to Wm. S. Dunn, damages done to his property | | |

| | | | |
|---|---|---|---|
| | in the Twenty-fourth Ward to October 15, 1885, and for the fencing to protect his land at Shaft Site 21 | | $1,906 20 |
| Oct. 21. | 575, 576, 577, 21.361 acres land in fee, in the Town of Greenburg, Westchester County, New York, to Jay Gould | $6,942 32 | |
| | Interest at 6 %, 200 days | 228 24 | |
| | | | 7,170 56 |
| Nov. 2. | West of Parcel 223, for the use of lands situated in the City of Yonkers to Bush, Rumsey and others | | 2,000 00 |
| Dec. 23. | 841, 842, 842½, 7.879 acres lands in fee, Town of Newcastle | $1,500 00 | |
| | Damages by Surveyors to adjoining property | 1,000 00 | |
| | Easement in perpetuity and temporary, to Mrs. Phebe B. Vail | 500 00 | |
| | | | 3,000 00 |
| 1886. | | | |
| Feb. 17. | Near 705, Pocantico Blow-off, 1.710 acres lands in fee, with building thereon, Town of Mount Pleasant, to Jeremiah Mahoney | | 2,000 00 |
| | | | $48,631 64 |

The incidental expenses of Commissioners in connection with the said purchases amounted to the sum of $426.

Respectfully,

(Signed) JONH C. SHEEHAN,
*Secretary.*"

Which was ordered placed upon file.

The Secretary next submitted the following:

"AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, 280 BROADWAY,

NEW YORK, 12th August, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—In compliance with a resolution offered by Commissioner Fish on the 11th inst., and adopted by your Honorable Body, I herewith submit a report showing the different contracts made and executed by the Aqueduct Commissioners for work along the line of the Aqueduct; with whom made; the object of such contract; the amount of the same; whether awarded to the lowest bidder; when recommended by the Commission; the date of the acceptance of the same, and the vote of each Commissioner on the awarding of each contract or agreement.

Section 1. For work along the line of the Aqueduct was awarded to Messrs. Smith & Brown at their bid of $442,750, that being the lowest bid for the said work, and the contract for the same was executed on the 4th day of August, 1885. The contract was awarded to said Smith & Brown on the motion of the Comptroller, seconded by Commis-

sioner Baldwin, and received the votes of all the Commissioners, viz.:

WILLIAM R. GRACE, Mayor.
EDWARD V. LOEW, Comptroller.
HUBERT O. THOMPSON, Commissioner Public Works.
JAMES C. SPENCER, Commissioner.
WILLIAM DOWD, Commissioner.
C. C. BALDWIN, Commissioner.

Sections 2, 3, 4 and 5 for like work was awarded to Messrs. Brown, Howard & Co. at their respective bids of $1,653,655, $1,398,050, $1,518,475 and $726,975, making a total of $5,297,155.

They were the lowest bidders for work on Sections 2, 3 and 4, and for the work on Section 5; there were two bids lower than the said bid of Brown, Howard & Co.

The contracts for each of said sections were executed on the 30th of December, 1884. Section 2 was awarded on the motion of Commissioner Baldwin. Section 3 on the motion of the Comptroller. Section 4 on the motion of Commissioner Dowd; and Section 5 on the motion of Commissioner Spencer, and in each case the motions so made received the vote of all the Commissioners, viz.:

FRANKLIN EDSON, Mayor.
EDWARD V. LOEW, Comptroller.
HUBERT O. THOMPSON, Commissioner Public Works.
JAMES C. SPENCER, Commissioner.
WILLIAM DOWD, Commissioner.
C. C. BALDWIN, Commissioner.

Sections No. 6, 7, 8 and 9, for like work, were awarded to Messrs. O'Brien & Clark, at their respective bids of

$578,140, $1,376,785, $1,157,285 and $1,333,237, making a total of $4,445,447.

They were the lowest bidders for work on Sections 6 and 9, and for the work on Sections 7 and 8 there were two bids lower than the said bid of O'Brien & Clark.

The contracts for each of said sections were executed on the 18th of December, 1884.

Section 6 was awarded on the motion of the Comptroller.

Section 7, on the motion of the Commissioner of Public Works.

Section 8, on the motion of Commissioner Baldwin, and

Section 9, on the motion of the Comptroller.

In each case the motions so made received the votes of all the Commissioners, viz.:

FRANKLIN EDSON, Mayor.
EDWARD V. LOEW, Comptroller.
HUBERT O. THOMPSON, Com'r of Public Works.
JAMES C. SPENCER, Commissioner.
WILLIAM DOWD, Commissioner.
C. C. BALDWIN, Commissioner.

Sections A and B, being the sections laying on both sides of the Harlem River, were awarded to Heman Clark, he being the lowest bidder in each case, at the respective bids of $1,051,675 and $1,096,065.

The contracts for each of said sections were executed on the 18th day of December, 1884.

Section A was awarded on the motion of Commissioner Baldwin, and

Section B, on the motion of the Commissioner of Public Works.

In each case the motions so made received the votes of all of the Commissioners, viz.:

FRANKLIN EDSON, Mayor.
EDWARD V. LOEW, Comptroller.
HUBERT O. THOMPSON, Com'r of Public Works.
JAMES C. SPENCER, Commissioner.
WILLIAM DOWD, Commissioner.
C. C. BALDWIN, Commissioner.

Section 12 was awarded to O'Brien & Clark, at their bid of $430,345, that being the fourth lowest bid for the said work, and the contract for the same was executed on the 3d day of February, 1886.

The contract was awarded on the motion of Commissioner Spencer, and was adopted by the affirmative votes of—

EDWARD V. LOEW, Comptroller.
ROLLIN M. SQUIRE, Commissioner of Public Works.
JAMES C. SPENCER, Commissioner.
WILLIAM DOWD, Commissioner.
C. C. BALDWIN, Commissioner.

The Mayor, WILLIAM R. GRACE, voting in the negative.

Sections 13 and 14 were awarded to John Brunton & Co., they being the lowest bidder in each case, at their respective bids of $418,565 and $619,115, and the contracts for each of said sections were executed on the 3d day of February, 1886.

The contracts were awarded on the motion of the Comptroller, and were adopted by the affirmative votes of—

WM. R. GRACE, Mayor.
EDWARD V. LOEW, Comptroller.
ROLLIN M. SQUIRE, Commissioner of Public Works.

JAMES C. SPENCER, Commissioner.
WILLIAM DOWD, Commissioner.
C. C. BALDWIN, Commissioner.

On the 31st day of August, 1885, September 17, 1885, and January 11, 1886, agreements were made with Messrs. O'Brien & Clark, in accordance with Section 33 of Chapter 490, of the Laws of 1883, which authorizes the Commissioners to procure any work to be done without contract not involving an expenditure of over five thousand dollars, if they shall certify that, in their opinion, it is for the public interest that such work shall be so done.

On July 16, 1886, an agreement was made with Heman Clark to do certain work in connection with Shaft 19¾ and without cost to the Aqueduct Commissioners.

On July 14, 1886, the Commissioners awarded to Charles Peterson the contract for building a Crib Dock at the westerly side of the Harlem River, near Shaft No. 25, and again on July 21, 1886, a contract for furnishing the iron work for the Waste Weir Gate Houses on the Pocantico River, the Saw Mill River, and at Tibbett's Brook was awarded to Coldwell, Wilcox & Co., at their bid of $2,333. Both of said awards were made under the provisions of Section 30, Chapter 490, Laws of 1883.

The foregoing comprises all the contracts and agreements for work on the line of the Aqueduct.

It will be seen from the statemant that all of the contracts and agreements, excepting the last three, were made before the passage of Chapter 337, Laws of 1886.

I find no contracts executed by the Commissioners appointed since the passage of said act, except the one refer-

red to as having been made with Heman Clark, the other two not having been executed as yet.

Respectfully,

(Signed) JOHN C. SHEEHAN.

*Secretary.*"

On motion of Commissioner BARNES, the said communication was ordered placed upon file, and entered upon the books of the Commission.

The Chief Engineer, in reply to Commissioner Barnes, stated that the length of Aqueduct which had been constructed up to the present time was 16 and $\frac{53}{100}$ miles, and that the total cost, including the July estimate, was $5,522,568.

The Secretary then submitted the following communication from the Counsel to the Corporation:

"LAW DEPARTMENT,
OFFICE OF THE COUNSEL TO THE CORPORATION,
NEW YORK, August 13, 1886.

JOHN C. SHEEHAN, Esq.,
*Secretary of the Aqueduct Commission:*

Dear Sir,—Yours of August 12th, calling my attention to the request contained in a communication from your office, of January 5th last, is at hand. In reply thereto I would say that, pursuant to the request therein contained, I caused, upon the 7th of August inst., a notice of appeal in the Matter of Ryan *against* The Civil Service Examining Board, etc., to be filed and served. The return to the Court of Appeals will be filed in the course of a day or

two, and the matter brought up in the Court of Appeals as soon as the Court convenes.

Yours respectfully,

(Signed) E. HENRY LACOMBE,
*Counsel to the Corporation.*"

On motion of Commissioner RIDGWAY, the same was ordered to be received and spread upon the minutes of the Commission.

The following communication was received from the Comptroller:

"CITY OF NEW YORK—FINANCE DEPARTMENT,
COMPTROLLER'S OFFICE,
August 13, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—I beg to acknowledge the receipt from John C. Sheehan, Secretary, of a preamble and resolution adopted by the Aqueduct Commissioners at a meeting held on the 11th inst.

The preamble declares that 'The Comptroller requires the Engineers and other men on the line of the Aqueduct to leave their work and come to the City and draw their pay, and

*Whereas*, Such absence from the work is injurious to the public service and causes delay; therefore,

*Resolved*, That the Comptroller be requested to forward the pay of the Engineer Corps and Inspectors to them upon the work.'

I am at a loss to understand how the Aqueduct Commissioners could have passed a resolution with a preamble so utterly unfounded, and can account for it only upon the presumption that they have been deceived by misrepresentations of the facts in some quarter where their confidence has been betrayed.

The statement contained in the preamble is wholly at variance with the truth, as the uniform practice has been for the Paymaster of the Finance Department, or his Deputy, to pay the Engineer Corps and the Inspectors employed by the Aqueduct Commission in person, at the place where they are at work along the line of the Aqueduct and can sign the pay-rolls, and in no instance are they required to leave their work and come to the City to draw their pay, as alleged in the preamble to the resolution requesting the Comptroller to 'forward the pay' to them.

I hope that the Aqueduct Commissioners will take proper measures to correct this misstatement, and remain,

Very respectfully,

(Signed) EDWARD V. LOEW,
*Comptroller.*"

On motion of Commissioner BARNES the communication was received, and ordered placed upon file.

Commissioner RIDGWAY stated that he was informed that the Comptroller did not send the Paymaster to pay the men on Manhattan Island, and that considerable delay was caused on that account, and that he thought that the Paymaster ought to be sent to pay the men at each shaft, and that the preamble and resolution offered by him were not intended to reflect upon the Comptroller.

Commissioner BALDWIN moved that the preamble and resolution passed at the last meeting, referring to the action of the Comptroller in paying the men on the line of the Aqueduct be reconsidered, and the same was so ordered by the affimative vote of Commissioners Spencer, Dowd, Baldwin and Barnes; Commissioners Ridgway and Fish voting in the negative.

Commissioner DOWD then moved that the resolution so reconsidered be laid on the table, and the same was adopted by a similar affirmative vote.

Chief Engineer Church then submitted a communication, addressed to the Commissioners, out of the regular order of business, upon the proposed construction of the Quaker Bridge Dam and Reservoir.

On motion of Commissioner BARNES the said communition was referred to the Committee on Construction, with the request that they report on the same on the 1st Wednesday in September.

Commissioner FISH then offered the following resolution, and moved its adoption, viz.:

*Resolved*, That the Secretary be directed to furnish this Commission at its next meeting with a statement showing the amount paid out of the fund known as the "Additional Water Fund" for expenses of the Commissioners of Appraisal, setting out in detail the different items, to whom paid and when, and for what purpose.

The resolution was unanimously adopted.

Commissioner RIDGWAY then offered the following resolution:

*Resolved*, That the Secretary be directed to furnish this Commission, at the earliest possible date, a list showing the names of all persons with whom negotiations are being had for the purpose of purchasing lands, or any interest in lands, for Aqueduct purposes, the list of such lands and the nature and extent of such negotiations.

After considerable discussion the adoption of the resolution was lost by the following vote:

*In the affirmative—Commissioners Barnes, Ridgway and Fish.*

*In the negative—Commissioners Spencer, Dowd and Baldwin.*

Commissioner BALDWIN offered the following resolution:

*Resolved*, That Charles K. Gracie be and he is hereby appointed Assistant Engineer to fill a vacancy on the Second Division.

The same was adopted by the following vote:

*In the affirmative—Commissioners Baldwin, Barnes, Ridgway and Fish.*

*In the negative—Commissioners Spencer and Dowd.*

Commissioner BALDWIN then moved that when this Commission adjourns it adjourns to the Stated Meeting on the 1st Wednesday in September, and the same was unanimously adopted.

On motion of Commissioner BARNES the Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, September 1, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works*, General JOHN NEWTON, *Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Special Meeting of August 13th were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos. 1955 to 1972 inclusive, also vouchers Nos. 1979 to 1989 inclusive, and the same were approved and ordered certified to the Comptroller for payment.

The Committee also reported their approval of the action of the Purveyor of the sale to P. Dolan of wood cut

by the Engineers upon the line of the new Aqueduct, between Shafts 10 and 12A, for the sum of $30, and the payment of said sum to the City Chamberlain to the credit of the "Additional Water Fund," and the same was approved by the Commissioners.

The Committee next reported their action on Estimate No. 19, Section B, returned by the Comptroller, and the said action was approved by the Commissioners.

The Committee also reported that they had under consideration the matter of the payment to David B. Lewis for one and one-half month's service at Yonkers.

After some discussion the matter was referred back to the Committee for further examination and report.

The Committee on Construction submitted the following report:

"NEW YORK, September 1, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—The Committee on Construction report that they have had under consideration the subject-matter of the communication of the Chief Engineer, dated August 1, 1886, and concur in the opinion therein expressed that in reorganizing the parties on the several divisions much inconvenience and personal expense to the Assistants and loss of time to the work will be saved by requiring the single men only to change their residence.

Your Committee also approve of the following assignments to duty, made by the Chief Engineer, viz.:

Assistant Engineer S. F. Morris to North Section, Fourth Division.

Assistant Engineer G. R. Olney to Middle Section, Fourth Division.

Assistant Engineer P. K. Yates to South Section, Fourth Division.

Rodman W. E. Horton to North Section, Fourth Division.

Rodman W. T. Ross to Second Division.

Assistant Engineer W. McCulloh, special temporary duty in making soundings and additional examinations of Sodom Dam, to obtain data for completing plans.

Transitman Curtis Millard to temporarily perform the duties performed by W. McCulloh on the Aqueduct.

(Signed) JAMES C. SPENCER,
*Chairman.*"

On motion of Commissioner BARNES, the report of the Committee was unanimously adopted.

A communication was received from the Commissioner of Public Works submitting "Exhibit FF," being maps of property required for Double Reservoir I; showing the proposed changes in the location of the highways bordering the said reservoir; also the change in the location of the New York and New England Railroad, and the taking in fee of Parcels Nos. 80 and 81, together with the water rights appurtenant to said parcels.

In connection therewith Commissioner SPENCER offered the following resolution:

*Whereas*, The Commissioner of Public Works, pursuant to Section 4, Chapter 490 of the Laws of 1883, heretofore prepared and submitted to this Commission six similar property maps of the lands required for the

construction of the dams and reservoirs upon the east branch of the Croton River, which maps were designated "Exhibit FF," and were approved and adopted by the Aqueduct Commissioners on the 5th day of May, 1886; and

*Whereas,* Since said adoption of said maps, the Counsel to the Corporation advised that they be so amended as to show all changes proposed to be made in the highways bordering upon said reservoirs; also the proposed change in the location of the New York and New England Railroad, and also the taking in fee of certain additional parcels of land, and that when said maps were so amended they be again submitted to public hearing; and

*Whereas,* The said maps have now been so amended and submitted to this Commission by the Commissioner of Public Works; now, therefore, be it

*Resolved,* That public hearing be given to all persons interested in relation to said proposed changes in said highways and railroads, and in the taking in fee of the two additional parcels of land now shown upon said maps, and numbered Parcels 80 and 81; said hearing to be given at this office on Wednesday, the 8th day of this month (September, 1886), and the Secretary is hereby directed to give due notice of said hearing by publication in the *City Record*, in the City of New York, and in the *Standard* and the *Courrier*, published at Brewsters, in Putnam County.

On motion of Commissioner BARNES, the resolution was unanimously adopted.

The Secretary submitted the statement called for by a resolution offered by Commissioner FISH on the 13th ult., and adopted by the Commissioners, showing the amount paid out of the fund known as the "Additional Water Fund," for the expenses of the Commissioners of Appraisal.

Commissioner RIDGWAY moved that the report be received and spread in full upon the minutes.

Commissioner BALDWIN moved as an amendment to the motion of Commissioner RIDGWAY, that the report be received and filed, and the same was adopted.

The Secretary then submitted a communication from Messrs. O'Brien & Clark, contractors, complaining of the delay in the payment of their estimates, and stating that they would look to the City of New York to make good the loss occasioned them by such inconvenience and hindrance to the progress of their work.

A similar communication was also received from Messrs. Brown, Howard & Co., contractors, and on motion of Commissioner BALDWIN, said communications were ordered placed upon file, and copies thereof sent to the Comptroller.

The Secretary then submitted a communication from the Counsel to the Corporation, giving his opinion as to whether the Chief Engineer had the power, under the contracts with the contractors, to provide for adequate light and ventilation to do engineering work, etc., where, in his opinion, the contractors had failed to do it.

On motion of Commissioner DOWD, the communication and the subject-matter therein contained was referred to the Committee on Construction.

The Secretary next submitted a communication from Robert H. Moore, tendering his resignation; and on the verbal recommendation of the Chief Engineer Commissioner BARNES moved that the resignation be accepted, to take effect as of the 1st day of September, and the same was adopted, the Commissioner of Public Works and Commissioner Fish voting in the negative.

The Secretary next submitted communications from the Comptroller, of the dates August 14th, 21st and 28th, showing the drawing of warrants for the payment of vouchers not certified to by the Aqueduct Commissioners, for the following amounts:

| | |
|---|---|
| Manhattan Island Section | $150 |
| New York County Section | 504 |

—and the same were ordered to be received and placed upon file.

The Secretary then submitted a communication received from W. H. Barlow and David B. Tompkins, executors, showing the loss and damage to their property at Shaft No. 1.

Commissioner RIDGWAY moved that the matter be referred to the Committee on Construction.

Commissioner SPENCER moved as an amendment that it be referred to the proper Commissioners of Appraisal; and the same was adopted, and the Secretary directed to notify the Commissioners of Appraisal of such action.

A communication was received from the Chief Engineer, asking that authority be given him to select and employ five or six laborers temporarily for the purpose of completing soundings and test pits at the Sodom Dam and overflow; and on motion of Commissioner BARNES the request of the Chief Engineer was ordered to be complied with.

Commissioner BARNES, seconded by Commissioner NEWTON, then offered the following resolution:

*Resolved*, That the President, Vice-President, and Chief Engineer be and they are hereby appointed a Committee to meet and advise with the Supervisory Committee of the Civil Service Commission, and ask them to withdraw their protest against the payment of the Inspectors and other employees heretofore appointed and now engaged upon the work, and they are authorized to say to the Commission that no further appointments will be made until the question is determined by the Court of Appeals, unless in compliance with the rules and regulations claimed by the Civil Service Commission as applicable to the appointees of this Commission.

—which was unanimously adopted.

The Chief Engineer submitted, out of its regular order, the resignation of Frank Clark, an Inspector of Masonry.

Commissioner FISH moved that the resignation be not accepted, but that said Clark be dismissed.

Commissioner BALDWIN moved as an amendment that the matter be referred to the Committee on Construction for further examination and report.

The recommendation of the Chief Engineer and the correspondence in connection with the dismissal of said Clark were then called for, and read by the Secretary.

After the reading of such correspondence Commissioner FISH's motion was unanimously adopted.

On motion of Commissioner BARNES, the Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, September 8, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works, Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The meeting was opened for public hearing pursuant to the following notice:

" AQUEDUCT COMMISSIONERS' OFFICE,
NEW YORK, September 1, 1886.

NOTICE.

*To all whom it may concern:*

*Whereas*, Public hearing has heretofore from time to time been given to all persons interested in relation to the location and construction of the dams and reservoirs upon the east branch of the Croton River, near the

Town of Sodom, in Putnam County, and known as the Double Reservoirs I; and after said hearings the Aqueduct Commissioners decided that said dams and reservoirs should be constructed. and are now taking the required legal steps to acquire the lands and property rights necessary therefor; and

*Whereas*, It now appears to said Commissioners that for the more efficient construction of the aforesaid dams and reservoirs further property rights and privileges than those heretofore submitted to public hearing are required to be taken.

Now, therefore, in conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation to proposed changes in the location, alignment or grade of certain of the highways bordering upon or included within the sites of said dams and reservoirs; and also for the acquirement of additional lands and water rights, all as the same are shown upon the maps and plans now on file in this office. Said public hearing to be at the above-named office of the Aqueduct Commissioners, in the City of New York, on Wednesday, September 8, 1886, at one o'clock P. M., and upon such subsequent days and times thereafter to which said hearing may be adjourned, until concluded.

By order of

JAMES C. SPENCER,
*President of the Aqueduct Commission.*

Attest:

JOHN C. SHEEHAN,
*Secretary.*"

Mr. Miller, District Attorney of Putnam County, on behalf of the people of the Town of South East, was heard in relation to a proposed change in the highway through that town, and his remarks were recorded by the Stenographer of the Commission.

No one else desiring to be heard, the public hearing was then ordered closed, and the subject-matter thereof ordered to be considered in Executive Session, and the regular order of business taken up.

The minutes of the Stated Meeting of September 1st were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers 1990 to 2005 inclusive, and on motion of Commissioner DOWD the action of the Committee was approved, and the vouchers ordered certified to the Comptroller for payment.

The Secretary submitted a communication from Messrs. O'Brien & Clark, contractors, notifying the Commissioners that they had purchased the land for the site of a shaft granted them between Shafts 16 and 17 on their work.

On motion of Commissioner BARNES, the same was referred to the Committee on Construction.

The Secretary then submitted a communication received from the Comptroller, under date of the 4th instant, showing the drawing of warrants for the payment of vouchers in favor of

| | |
|---|---|
| Spencer G. McNary for | $217 61 |
| Henry Hilton for | 300 00 |

—chargeable to the Westchester County Section, and not certified to by the Aqueduct Commissioners.

On motion of Commissioner DOWD, the same was received and ordered placed upon file, and entered upon the books of the Commission.

The Chief Engineer submitted a communication received from Messrs. O'Brien & Clark, stating that they had arranged for a site of an extra shaft between Shafts 16 and 17 on Section 8, and had obtained the land for that purpose.

In connection therewith the Chief Engineer submitted a communication recommending that O'Brien & Clark be allowed to construct the said shaft between Stations 990 and 1025, at a cost not to exceed $5,000.

Commissioner RIDGWAY moved that the recommendation be approved.

Commissioner BALDWIN moved as an amendment that the matter be referred to the Committee on Construction, and the same was unanimously adopted.

The Chief Engineeer next submitted a communication, recommending that Charles E. Taft, Inspector of Masonry, be granted an indefinite leave of absence, without pay, and on motion of Commissioner BARNES, the same was granted.

The Chief Engineer next submitted the resignation of Rodman Roland G. Rood, to take effect on September 15th.

Commissioner RIDGWAY moved that the same be re-

ferred to the Committee on Construction, and it was unanimously adopted.

Commissioner DOWD then presented a letter received from Royal Chapin referring to back pay which he claims to be due him.

On motion of Commissioner BARNES, the matter was referred to the Committee on Construction.

Commissioner DOWD next offered the following resolution:

*Whereas*, By a majority vote of the Commissioners authority was heretofore given for the payment for keep of horses belonging to some of the Division Engineers, and by them used more or less in the performance of their official duties; and

*Whereas*, Experience has shown that such allowances are open to objections of greater or less weight; therefore

*Resolved*, That from and after this date no allowance be made, or bills paid for the keep of horses belonging to members of the Engineer Corps.

Commissioner BARNES moved that the resolution be referred to the Committee on Construction, and the same was lost.

Commissioner BALDWIN moved that the resolution be adopted as read, and the same was unanimously adopted.

Commissioner DOWD then offered the following resolution:

*Resolved*, That the minutes of the Committee on Construction be read at the regular meetings of this Board for their information.

—and on his motion the consideration of said resolution was laid over for one week.

On motion of Commissioner BARNES the Commissioners then adjourned, and went at once into Executive Session.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, September 8, 1886, at 4 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works, Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

The Chief Engineer submitted the following report:

" NEW YORK, September 8, 1886.

*To the Honorable the Aqueduct Commissioners:*

Gentlemen,—I herewith respectfully report the following progress in the lighting and ventilation of the Aqueduct tunnels.

On Brown, Howard & Co.'s contracts some preparation of foundations for electric dynamos have been made at Shafts 4 and 5, and I learn that electric apparatus has been ordered and is nearly ready. At Shaft 9, south portal, from 4 to 5 electric lights have been in use for some months.

One ten-light power dynamo with engine is being erected at Shaft 10, to give three electric lights in each tunnel, which is hardly sufficient.

The same conditions have existed at Shaft 11B for some months.

At Shafts 1, 2, 3, 6 and 7, no preparations have yet been made to improve the light and ventilation on Brown, Howard & Co.'s work.

On O'Brien & Clark's and Heman Clark's contracts good light and ventilation have been secured in all the tunnels.

On John Brunton & Co.'s no preparations have been made as yet for electric light and ventilation. Their headings will soon be sufficiently advanced to require it.

The light and ventilation on Brown, Howard & Co.'s tunnels is still vitiated by the use of gasoline and numerous miners' lamps.

Very respectfully,

(Signed) B. S. CHURCH,

*Chief Engineer.*"

In connection therewith Commissioner BARNES offered the following resolution, which was unanimously adopted:

*Resolved*, That the Chief Engineer be and he is hereby authorized and directed to advertise in three newspapers published in the City of New York, for proposals for the necessary apparatus to provide electric lights and ventilation for all the shafts and headings where proper lighting and ventilation has not been provided by the contractors, said advertisements to be published ten days, and the proposals which may be received shall be reported at the next ensuing Stated Meeting of the Commissioners, provided that the

Chief Engineer shall first ascertain that the contractors have not completed arrangements for lighting and ventilating the shafts and headings which he has this day reported as not being properly lighted and ventilated, and report his action at the next Stated Meeting of the Commissioners.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, September 15, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *Commissioner of Public Works, Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, *and Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated and Special Meetings of September 8th were read and approved.

The Committee of Finance and Audit reported their examination and audit of the monthly estimates for work done on the Aqueduct during the month of August, contained in vouchers Nos. 2006 to 2019 inclusive; and on motion of Commissioner DOWD the same were approved, and ordered certified to the Comptroller for payment.

The Committee on Construction, by its chairman, Oliver

W. Barnes, presented the following reported, dated September 15, 1886:

"The Committee on Construction submit a letter from the Chief Engineer, dated September 13, 1886, accompanied by a letter of Mr. Alphonse Fteley, Consulting Engineer, and recommend the passage of the following resolution:

'*Resolved*, That the Chief Engineer be authorized to call Mr. Fteley to active duty, and that his salary be fixed at $5,000 per annum, from the date on which he assumes duty with the Chief Engineer.'"

On motion of Commissioner BALDWIN, the said resolution was unanimously adopted.

The Committee next made the following report, dated September 15th:

"The Committee on Construction recommend that the resignation of Mr. Roland G. Rood, as Rodman, be accepted, to take effect September 15th."

On motion of Commissioner DOWD, the same was unanimously adopted.

The Committee next made the following report, dated September 15th:

"The Committee on Construction report, that it has had under consideration the application of Mr. Royal Chapin, late Assistant Engineer, for pay for the month of July, and up to August 6th, and the Committee recommend that Mr. Chapin be paid up to August 6th, the date of his suspension."

Which recommendation was approved,

The Committee also reported in favor of making an appropriation of not to exceed $250 to cover cost of a transit for use of Division Engineer Gowen's party at Shafts 5 and 6, and in connection therewith a communication from the Chief Engineer recommending the same was read.

On motion of Commissioner BARNES, the report of the Committee was approved and the appropriation made.

A communication was received from the Commissioner of Public Works in relation to laying as soon as possible the necessary mains between the Gate House at One Hundred and Thirty-fifth street and the Central Park Reservoir, and on motion of Commissioner RIDGWAY the same was referred to the Committee on Construction.

The Secretary then presented the final estimate for work done by Heman Clark, contractor, in the construction of a culvert across the dumping grounds of Shaft 20, in the Twenty-fourth Ward of the City of New York, also form of certificate for the final estimate, and the affidavit of Heman Clark showing that all claims for work and materials have been paid; whereupon, on motion of Commissioner BALDWIN, the following resolution was unanimously adopted:

*Whereas*, The Chief Engineer of this Commission has certified in writing that in his opinion Heman Clark has completely performed his agreement made with this Commission on the 11th day of January, 1886, for the construction of a culvert across the dumping grounds of Shaft No. 20, in the Twenty-fourth Ward, of the City of New York, and has stated from actual measurements the whole amount of work done and

materials furnished under and according to the terms of said agreement, and of the true value thereof, and said Heman Clark having furnished to this Commission satisfactory evidence that the claims of all persons who have done work or furnished materials under said agreement have been duly paid or satisfactorily secured; now, therefore, be it

*Resolved*, That the Aqueduct Commissioners do accept the work done and materials furnished by Heman Clark under his agreement made with this Commission on the 11th day of January, 1886, for the construction of a culvert across the dumping grounds of Shaft No. 20, in the Twenty-fourth Ward of the the City of New York, and that a proper voucher for the final payment for work done and materials furnished under said agreement be approved by the Commissioners and certified to the Comptroller for payment.

The Secretary then submitted notices of lien filed with the Comptroller in favor of Patrick Flanagan and P. J. Fleming against Sections 13 and 14, and in favor of John Kelly against Shaft No. 19, and on motion of Commissioner BARNES the same were referred to the Committee of Finance and Audit.

The Chief Engineer then submitted a communication, dated September 15th, recommending that the City Paymaster be requested to pay the members of the Engineer Corps along the line of the Aqueduct in bank bills instead of checks.

Commissioner BALDWIN moved that the communication be referred to the Committee of Finance and Audit,

and that they be requested to take immediate action thereon. Carried.

The Chief Engineer next submitted a communication with regard to light and ventilation of the different shafts along the line of the Aqueduct.

Commissioner BARNES moved that the action of the Chief Engineer be approved, and the same was adopted.

Commissioner SPENCER presented the following preamble and resolution:

*Whereas*, On the recommendation of the Counsel to the Corporation and the Commissioners of Appraisal for New York County, it is the sense of the Aqueduct Commissioners that it is for the best interest of the City of New York that in lieu of the easement heretofore acquired through the lands upon the line of the new Aqueduct, between One Hundred and Forty-fifth street and Convent avenue, and One Hundred and Fifty-second street and Tenth avenue, the fee simple should be acquired of said lands, and also of the adjacent parcel composing the city lot through which said portion of the Aqueduct passes; therefore be it

*Resolved*, That the Commissioner of Public Works is hereby requested to prepare and submit to the Aqueduct Commissioners a plan, as required by Section 2, of Chapter 490, of the Laws of 1883, showing thereon all of the above-named parcels of land to be taken in fee, and that full opportunity to be heard be given to all persons interested; said hearing to be given at this office on the 1st of October, 1886, at ten o'clock

A. M., and the Secretary is hereby directed to give one notice of said hearing by publication in the *City Record* and in New York *World*, New York *Tribune* and New York *Times*.

On motion of Commissioner BARNES, the resolution was unanimously adopted.

Commissioner BARNES offered the following resolution and moved its adoption:

*Resolved*, That from and after this date the Inspectors of Masonry employed on the new Aqueduct be paid at the rate of $120 per month in full for all services rendered and expenditures incurred by them, instead of the per diem allowance now in use.

Which was unanimously adopted.

Commissioner BARNES next offered the following resolution:

*Resolved*, That from and after this date, the pay of the Special Tunnel Inspectors employed on the line of the new Aqueduct be at the rate of $150 per month in full for all services rendered and expenses incurred by them, instead of the per diem allowance now paid them.

Which was unanimously adopted.

The COMMISSIONER OF PUBLIC WORKS then offered the following resolution:

*Resolved*, That the By-Laws of the Aqueduct Commissioners be and the same are hereby amended as follows:

FIRST.—By inserting after the words "Chief Engineer," in Section Three of Article Two, the words "Deputy Chief Engineer and Consulting Engineers;" the said section, so amended, shall then read as follows:

SECTION 3. A Chief Engineer, Deputy Chief Engineer and Consulting Engineers, Principal Assistant Engineers, and such Division and Assistant, and such other Engineers, Supervisors, Inspectors and employees for the Engineer Corps as the Aqueduct Commissioners may deem necessary. They shall be appointéd and their salaries shall be fixed by the said Commissioners, and their terms of office shall be during the will and pleasure of said Commissioners.

SECOND.—By inserting after the words "Chief Engineer," in Section Two of Article Five, the words "Deputy Chief Engineer and Consulting Engineers," and changing the enumeration; the said section, so amended, shall then read as follows:

SECTION 2. The Engineer Corps shall consist of the following officers and employees, whose relative rank shall be:

1. Chief Engineer.
2. Deputy Chief Engineer and Consulting Engineers.
3. Principal Assistant Engineers.
4. Division Engineers.
5. Assistant Engineers and Subdivision Engineers.
6. Draughtsmen.
7. Rodmen.

8. Chainmen.
9. Inspectors.
10. Janitors, Overseers and Messengers.
11. Watchmen, Drivers, Laborers and others in a subordinate capacity.

THE CLERICAL FORCE.

1. Chief Clerk to Chief Engineer.
2. Assistant Clerks.

THIRD.—By substituting the word "three" for the word "five" in the first clause of Section Two of Article Three, so that the Committee on Construction shall hereafter consist of three Commissioners only; and the said first clause of said section, so amended, shall then read as follows:

SECTION 2. A Committee on Construction, consisting of three members, that shall be an Executive Committee of the Aqueduct Commissioners, with full powers of direction and supervision over the work of construction, and over the engineers, officers and employees engaged therein, and the offices and property in their charge; subject, however, to the authority and direction of the Aqueduct Commissioners at all times.

FOURTH.—That Section Three of Article Three is hereby repealed, and the following section is hereby adopted in place thereof:

SECTION 3. A Committee on Real Estate, consisting of three Commissioners, who shall have the charge and supervision of the maps, plans, contracts and other

documents and papers relating to real estate taken or purchased, or proposed to be taken or purchased, under the law for Aqueduct purposes, and said Committee shall represent the Aqueduct Commissioners, with the Commissioner of Public Works and the Counsel to the Corporation, in the details of all applications and proceedings instituted, or proposed to be instituted, under the law for the taking of lands for Aqueduct purposes, and after the City of New York has become seized in fee or otherwise of any real estate by purchase or proceedings at law said Committee shall have the charge and supervision of the same, and of the contracts, conveyances, maps and other papers or documents or copies thereof relating thereto, and a full record of the same shall be kept in books provided for that purpose, and said Committee shall represent and care for the interests of said Aqueduct Commissioners and the City of New York in regard to the use and occupation of said lands, and the assessment, levy and payment of taxes upon the portions of the same not lying within the limits of the City and County of New York, subject at all times to the direction of the Aqueduct Commissioners in regard to such charge and supervision, and all action of the said Committee in the premises.

Said Committee shall organize by the appointment of one of their number as Chairman, and with the assent of the Aqueduct Commissioners, shall appoint and employ from time to time a suitable person as Secretary of said Committee, who shall, under the direction and supervision of said Committee, keep its minutes and records, and have the care and custody of the same, and shall perform such other duties in

the details of the work of said Committee and the Aqueduct Commissioners as shall be assigned to him, and his compensation for such service shall be fixed by the Aqueduct Commissioners.

FIFTH.—That Section Four of Article Three be transposed, and become and hereafter be Section Four of Article Two.

SIXTH.—That the following be and the same is hereby adopted as Section Four of Article Three, namely:

SECTION 4. The Aqueduct Commissioners shall elect immediately, by ballot, a Committee on Construction and a Committee on Real Estate, of three members each, to serve until the annual election on the second Wednesday of January, 1887, and all vacancies on the standing committees occurring hereafter, or from time to time, shall be filled in like manner by the said Commissioners.

*Resolved*, That the Secretary be and he is hereby directed to record anew upon the minutes of the Commission the By-Laws as now amended, and to have five hundred copies thereof printed for the use of the Commissioners.

Commissioner NEWTON moved the adoption of the resolutions as read.

Commissioner FISH made the point of order that the entire subject matter covered by the resolutions was a privileged question, and moved that further action be suspended for the time being, and that the Commissioners go

into Executive Session, three members asking for the same.

The Chair ruled the motion out of order at this time.

Commissioner FISH made the point of order that the question should be divided, and a vote taken separately on each amendment as specified in said resolution.

The PRESIDENT decided that the point was well taken, and the amendments should be considered separately, and the question of the adoption of the first amendment was then taken up.

Commissioner FISH then moved to amend the amendment as proposed by adding that no person shall be employed by the Commissioners who is not at the time a citizen of the State of New York.

This motion to amend was lost by the following vote:

*In the affirmative—Commissioners Barnes, Ridgway and Fish.*

*In the negative—Commissioner Dowd, the Commissioner of Public Works and Commissioner Baldwin; the President not voting.*

Commissioner BARNES then moved as a further amendment that the entire subject matter be referred to the Committee on By-Laws, and the same was lost.

The question recurring on the original motion of Commissioner Newton, being the first amendment covered by the resolutions and known as "Section 3," was then adopted by the affirmative vote of Commissioners Spencer, Dowd, Commissioner of Public Works and Commissioner

Baldwin; Commissioners Barnes, Ridgway and Fish voting in the negative.

The question then recurred on the adoption of the second amendment covered by the resolutions, and the same was adopted by the following vote:

*In the affirmative—Commissioners Spencer, Dowd, Commissioner of Public Works and Commissioner Baldwin.*

*In the negative - Commissioners Barnes, Ridgway and Fish.*

The question then recurred on the third amendment covered by the resolutions.

Commissioner BARNES moved as an amendment that the same be referred to the Committee on By-Laws, and the same was lost.

The third amendment covered by the resolutions was then adopted by the affirmative votes of Commissioners Spencer, Dowd, Commissioner of Public Works and Commissioner Baldwin; Commissioners Barnes, Ridgway and Fish voting in the negative.

The question then recurred on the adoption of the fourth amendment covered by the resolutions.

Commissioner BARNES moved as an amendment that the same be referred to the Committee on By-Laws, and the same was lost.

Commissioner BARNES then moved that it be referred to the Counsel to the Corporation for his opinion, which was lost.

The fourth amendment was then adopted by the following vote:

*In the affirmative—Commissioners Spencer, Dowd, Commissioner of Public Works and Commissioners Baldwin and Barnes.*
*In the negative—Commissioners Ridgway and Fish.*

Commissioner DOWD then moved the adoption of the fifth amendment covered by the resolutions, and the same was adopted.

The question recurring on the adoption of the sixth amendment covered by the resolutions, Commissioner BARNES moved that it be referred to the Committee on By-Laws, and the same was lost.

The sixth amendment was then adopted by the following vote:

*In the affirmative—Commissioners Spencer, Dowd, Commissioner of Public Works and Commissioners Baldwin, Barnes and Ridgway.*
*In the negative—Commissioner Fish.*

The resolution which directs the Secretary to record the By-Laws as amended, and to have five hundred copies of the same printed, was then adopted.

Commissioner DOWD moved that the By-Laws as amended be adopted as a whole.

Commissioner BARNES moved as an amendment that they be laid on the table, and the same was lost by the following vote:

*In the affirmative—Commissioners Barnes, Ridgway and Fish.*

*In the negative—Commissioners Spencer, Dowd, Commissioner of Public Works and Commissioner Baldwin.*

The question recurring on the motion of Commissioner Dowd was then taken up, and the same was adopted by the following vote:

*In the affirmative—Commissioners Spencer, Dowd, Commissioner of Public Works and Commissioner Baldwin.*

*In the negative—Commissioners Barnes, Ridgway and Fish.*

Commissioner DOWD then moved that the Commissioners proceed at once to the election of the Committee on Construction and the Committee on Real Estate, as provided for in the amended By-Laws. Carried.

The ballot was then taken for the Committee on Construction. Four votes were cast, Commissioners Barnes, Ridgway and Fish refusing to vote, and on each ballot there appeared the names of Commissioners Spencer, Newton and Barnes.

The PRESIDENT then announced the result of the vote, and declared that the said gentlemen were elected as the Committee on Construction.

The ballot was then taken for the Committee on Real Estate. Four votes were cast, Commissioners Barnes, Ridgway and Fish refusing to vote, and on each ballot there appeared the names of Commissioners Spencer,

Dowd and Fish, and the PRESIDENT declared the said gentlemen were elected as said Committee on Real Estate.

Commissioner FISH then declined to act as a member of said Committee.

Commissioner FISH offered the following resolution and moved its adoption:

*Whereas*, Serious charges have been made in the public press affecting the Aqueduct Commission and the building of the Aqueduct, and the expenditures of moneys for the same; and

*Whereas*, The statute creating the Commission provides that its members may be removed by the Governor on charges; and

*Whereas*, It is important that such charges should be either established or disproved with as little delay as possible; therefore

*Resolved*, That the Governor be requested to cause a thorough investigation of the Aqueduct Commission from its organization to the present time to be made, and of all expenditures of moneys paid out of the "Additional Water Fund" of the City of New York for Aqueduct purposes.

Commissioner BARNES moved that the resolution be laid on the table for one week, and the same was lost by the following vote:

*In the affirmative—Commissioners Barnes and Ridgway.*
*In the negative—Commissioners Spencer, Dowd, Commissioner of Public Works and Commissioners Baldwin and Fish.*

The question then recurred on the adoption of the resolution as offered by Commissioner Fish, and the same was lost by the following vote:

*In the affirmative—Commissioners Dowd, Barnes, Ridgway and Fish.*

*In the negative—Commissioners Spencer, Dowd, Commissioner of Public Works and Commissioner Baldwin; Commissioner Dowd changing from the affirmative to the negative.*

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, September 22, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works, Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of September 15th were read and approved.

The Committee on Construction, by its Chairman, Oliver W. Barnes, submitted the following report:

That at their meeting on the 17th inst. the Committee organized by the appointment of the following officers:

OLIVER W. BARNES, Chairman.
JAMES C. SPENCER, Vice-Chairman.
JOHN NEWTON.
EDWARD L. ALLEN, Secretary.
JEFFERSON GROUB, Clerk.

That the Chief Engineer had verbally reported progress on the borings near Shaft No. 13; and after hearing his report thereon, the Committee recommend the adoption of the following resolution:

*Resolved*, That the Chief Engineer be requested to proceed with all possible dispatch to complete the borings on that ground as soon as possible, and if necessary obtain from the Department of Public Works the loan of an additional boring machine to expedite the work; and if any additional force of men or material is required, to report at an early date, with such request as he may deem necessary.

Adopted.

That the following rule was adopted and added to the Rules and Regulations of the Committee as Section 7, viz.:

SECTION 7. The meetings of the Committee shall be open to the visitation of the Aqueduct Commissioners, their Secretary, the Chief Engineer, and his Principal Assistants; and the Secretary and Clerk are directed to exhibit its minutes and proceedings to any of said persons named on his or their request. Persons other than those named may attend the meetings on the request or consent of the Committee.

Adopted.

Also recommend the adoption of the following resolution:

*Resolved*, That this Committee recommend to the Aqueduct Commissioners that their Secretary be directed to suppress all letter-heads in use that are incorrect according to the present organization, and have new ones prepared and printed.

Recommendation adopted.

Also that they have had under consideration a communition from the Commissioner of Public Works, dated September 10th, in relation to laying as soon as possible the necessary mains between the Gate House at One Hundred and Thirty-fifth street and Convent avenue and the Central Park Reservoir, and in connection therewith recommend the adoption of the following resolution:

*Resolved*, That the Chief Engineer be instructed to proceed immediately with the work of laying the necessary mains between One Hundred and Thirty-fifth street Gate House and the Central Park Reservoir, and for the distributing mains between these points, and to prepare the contracts for public letting of said work at the earliest practical date.

Adopted.

Also that on the 10th inst. the question of the necessity of additional shafts on the line of the Aqueduct being before the Committee, the Chief Engineer was requested to report to them what additional shafts, if any, would be needed in the progress of the work, and the reasons therefor.

That on the 17th inst. the Chief Engineer in a report stated that an additional shaft was required between

Shafts Nos. 15 and 16, at Station 927, which could be designated as "Shaft No. 15½;" and one between existing Shafts Nos. 13 and 14, at or near Station 792 + 50, which could be designated as "Shaft No. 13½;" and a third shaft between existing Shafts Nos. 16 and 17, at or near Station 1018, provided the contractors would provide the ground necessary for the same, and the dumping ground, and construct the shaft at a cost not to exceed $5,000.

Also that after due consideration they recommend that an additional shaft be constructed between Shafts Nos. 15 and 16, at or near Station 927, to be designated as "Shaft No. 15½," and recommend the adoption of the following resolution:

*Resolved*, That on the reception of the recommendation of the Chief Engineer and the Committee on Construction, the Aqueduct Commissioners deem it advisable and necessary that an additional shaft be located and constructed on the line of the new Aqueduct, between Shafts Nos. 15 and 16, at or near Station 927, that shall be known as "Shaft No. 15½," and that sufficient land be taken or purchased for the same, and for a dumping ground adjacent thereto; and the Aqueduct Commissioners hereby authorize and direct the construction of said shaft, and the taking or purchasing the necessary land for said shaft, and its adjacent dumping ground; and the Committee on Construction and the Chief Engineer are hereby directed to have the necessary land for said shaft and dumping ground surveyed and mapped immediately, and report to the Commissioners for their action in the premises.

On motion of Commissioner BARNES, the resolution was adopted by the following vote:

*Affirmative—Commissioners Spencer, Dowd, the Commissioner of Public Works, Commissioners Baldwin, Barnes and Ridgway*—6.

*Negative—Commissioner Fish*—1.

The Committee also recommend that an additional shaft be constructed by the present contractors of that portion of the Aqueduct between existing Shafts Nos. 16 and 17, at or near Station 1018, to be designated as "Shaft No. 16½," provided that the said contractors will enter into a special contract to construct said shaft and provide and furnish the necessary land for the same and dumping ground adjacent thereto; and recommend the adoption of the following resolution:

*Resolved*, That, on the reception of the recommendation of the Chief Engineer and the Committee on Construction, the Aqueduct Commissioners deem it advisable and necessary that an additional shaft be located and constructed on the line of the Aqueduct between Shafts Nos. 16 and 17, at or near Station 1018, that shall hereafter be known as "Shaft No. 16½," and be constructed by the present contractors of that portion of the Aqueduct; and the Aqueduct Commissioners hereby authorize and direct the construction of said shaft, provided the said contractors will and shall enter into a special contract to construct said shaft and provide and furnish the necessary land for the same and for the dumping ground adjacent thereto; and the Committee on Construction are hereby authorized to prepare for execution forms of

contract in regard to the same, and report the same to the Aqueduct Commissioners.

Commissioner BARNES moved the adoption of the resolution.

Commissioner FISH moved that the resolution be laid on the table for one week.

Commissioner FISH afterwards withdrew his motion, and the resolution was adopted by the following vote:

*Affirmative—Commissioners Spencer, Dowd, the Commissioner of Public Works, and Commissioners Baldwin, Barnes and Ridgway*—6.
*Negative—Commissioner Fish*—1.

The Committee reported that they were not prepared to report in regard to the third additional shaft recommended by the Chief Engineer.

Action of the Committee approved.

The Committee on By-Laws, by its Chairman, William Dowd, presented Rules of Order for observance by the Commissioners, as provided for in the last clause of Article I. of the By-Laws, and recommended that when the same are adopted that they be printed with said By-Laws.

Commissioner RIDGWAY moved that the report of the Committee be laid upon the table for one week, and that copies of the same be furnished to each Commissioner. Carried.

Commissioner FISH moved that the last vote taken be reconsidered, and the same was carried.

Commissioner FISH then moved that the report be referred back to the Committee on By-Laws for action and report; and the same was carried.

The Special Committee on Real Estate, by its Chairman, James C. Spencer, made the following report:

"NEW YORK, September 22, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—The Special Committee created by your resolutions of July 14th and 21st, 'to take into consideration the question of the taking the fee, in lieu of an easement, of lands upon the line of the new Aqueduct, with power to negotiate with owners thereof, either for an enlargement of the existing easement, or for a conditional fee, where said owners so desired,' make the following report:

FIRST.—On parcels in Westchester County.

On the 4th of August a conference was held by the Committee on Construction with the Chief Engineer and Mr. Dykman, of counsel for the City, in the taking of property rights in Westchester County; and the latter was requested to examine the parcels proposed to be taken in fee in that county, and to report the probable cost of the proposed change; and this Committee awaited the result of that examination before taking action in relation to these parcels.

Mr. Dykman completed his examination and made full report thereof to Corporation Counsel Lacombe on the 13th inst. That report was transmitted to the Committee on Construction by Mr. Lacombe on the 16th inst., accompanied by his own views and opinion upon the sub-

ject. The Committee on Construction referred those papers to this Committee, and we now submit them to you.

From these documents it appears that the probable cost of bringing the new legal proceedings (required to obtain the fee) up to the point which the former proceedings to acquire the easement have already reached, would entail a very heavy expense; and that the difference between the amount of awards for the fee, or for the easement, would tell very heavily against the City.

Under these circumstances the opinion of the counsel is adverse to the taking of the fee, except in certain cases referred to by them, and in that opinion this Committee concurs. The taking of the fee in the exceptional cases, and of certain rights in other cases, as named by said counsel, seem to us well advised, and for the best interest of the City.

We therefore recommend the adoption of the following resolution:

*Resolved*, That this Commission approves of the recommendations of the counsel for the City, contained in their communications of the 13th and 16th insts., in relation to proposed changes in the estate to be acquired in lands upon the line of the new Aqueduct, and the taking of the fee only in certain exceptional cases; also as to the steps to be taken to mitigate the damages in cases where an easement is acquired.

*Resolved*, That the above-named communications from counsel be referred to the Standing Committee on Real Estate, with request that under advice of said counsel they take the necessary steps to effect the objects set forth in said communications.

SECOND.—On lands in the Twenty-fourth Ward.

Under instructions from this Committee, most of the owners (or their representatives) of the parcels between the Harlem River and the lands now owned by the City north of Mosholu avenue have been seen, and without exception they are opposed to the taking of the fee in said parcels. In some cases the owners have verbally agreed to convey to the City, for a nominal consideration, the required easement for the construction of the Aqueduct, and the right to locate monuments, provided the fee be not taken, and no other use than monumenting be made of the surface.

A form of conveyance has been prepared in conference with the Counsel to the Corporation, and approved by this Committee, to be executed by such owners, and directions given to proceed at once to obtain the execution of such conveyances.

In nearly all the other cases it is believed that the owners will grant the right to locate monuments on similar conditions, leaving the consideration for the easement to be determined by the Commissioners of Appraisal; and as the nature of the easement and use to be made of the ground and surface above the Aqueduct are clearly defined in the above-named form of conveyance, many doubtful questions heretofore raised to increase the measure of damage will be settled, and the amount of the awards correspondingly reduced.

This Committee has therefore given directions to ascertain and report to the Standing Committee on Real Estate which of the owners of said parcels will enter into such an agreement.

THIRD.—On lands upon Manhattan Island.

It having been decided at your last meeting that the fee

be taken off the lots through which the Aqueduct passes between One Hundred and Forty-fifth street and One Hundred and Fifty-second street and Tenth avenue, and steps already initiated to effect such taking, further report from this Committee is unnecessary, and all matters in relation to the same may be referred to the Standing Committee on Real Estate.

The above being all the matters heretofore referred to and under consideration by this Committee, we ask that all unfinished business in relation thereto be referred to the Standing Committee on Real Estate, and that this Committee be now discharged."

Commissioner FISH rose to a point of order, and objected to the report of the Committee being received, for the reason that there was no Special Committee on Real Estate, as the Commissioners by their action on the 15th inst. dispensed with the services of such Committee, and created a regular Committee on Real Estate.

The point of order was overruled by the President.

The first resolution referred to in the said report was then unanimously adopted.

Commissioner BARNES moved the adoption of the second resolution mentioned in said report, and the same was adopted, Commissioner Fish voting in the negative.

Commissioner BARNES moved that the balance of the report be approved of, and the recommendations therein contained adopted; and the same was adopted; Commissioner Fish voting in the negative.

The Comptroller, under date of September 18th, gave notice of the issue of a warrant for payment of a voucher in favor of Cuyler Freeman for $200, for services rendered on the New York Section, said voucher not having been certified to by the Aqueduct Commissioners; which was ordered placed upon file and entered upon the books of this Commission.

The Secretary submitted a communication from J. Harvey Bell, Mayor of the City of Yonkers, with reference to the removal of a certain culvert by the Aqueduct contractors; and on motion of Commissioner RIDGWAY the same was referred to the Chief Engineer, with power.

The Secretary gave notice of the filing of a copy of a notice of lien in favor of the Burleigh Rock Drill Company for $1,130 against Section 8 of the new Croton Aqueduct; and on motion of Commissioner BARNES the same was referred to the Committee of Finance and Audit.

The Chief Engineer made report, under date of September 13th, with reference to the meeting of certain headings, and complimenting the Division Engineers and Assistant Engineers for the satisfactory work performed by them.

On motion of Commissioner BARNES, the said report was ordered placed upon file.

A communication, dated September 22d, was received from Brown, Howard & Co., contractors, requesting the engineers to change the date of making their monthly estimates for work done under their contracts for con-

structing the new Aqueduct from the 24th day of the month to the 1st day of each month; and on motion of Commissioner BARNES the Chief Engineer was directed to hereafter have the estimates of the contractors made up to and including the last day of each month.

Commissioner SPENCER then called the attention of the Commissioners to a vacancy existing on the Standing Committee on Real Estate.

Commissioner RIDGWAY moved that the matter be laid over until the next Stated Meeting of the Commissioners.

Carried.

The Commissioner of Public Works was excused at this time from further attendance.

Commissioner FISH then called from the table the resolution offered by Commissioner Dowd on the 8th of September, as follows:

*Resolved*, That the minutes of the Committee on Construction be read at the regular meetings of this Board for their information.

Commissioner FISH then moved the adoption of the same, which was adopted by the following vote:

*Affirmative—Commissioners Dowd, Baldwin, Ridgway and Fish*—4.
*Negative—Commissioners Spencer and Barnes*—2.

Commissioner FISH then offered the following resolution:

*Resolved*, That the Secretary be directed to inquire and report to this Commission at its next meeting whether any members of the clerical force have been or are now performing private services for any of the Commissioners, and what is the nature of those services.

Commissioner RIDGWAY moved the adoption of the same, and it was unanimously adopted.

Commissioner FISH then offered the following resolution:

*Resolved*, That the President of the Commission be requested to inquire and report to this Commission at its next regular meeting:

FIRST.—Whether any member of this Commission has lived in the building known as the "Tarrytown Headquarters" of the Commission; and if so, for how long a time, and whether at the expense of the Commission or any of its employees.

SECOND.—Whether any member of the Commission has kept his private horse at the expense of the Commission. If so, for how long a time.

THIRD.—Whether any member of the Commission authorized the purchase of the furniture at the expense of the Commission for a room to be occupied by him in the Tarrytown Headquarters, and whether such purchase (if any) was approved or disapproved by the Finance Committee or the Commission.

And that he submit at the same time any records in this office bearing upon these matters.

Commissioner RIDGWAY moved the adoption of the same.

Commissioner SPENCER stated that the President was not the proper person to make such report, and requested that it be referred to the Committee of Finance and Audit; and the same was referred to said Committee, with a request that they report at the next meeting of the Commissioners, and by the following vote:

*Affirmative—Commissioners Dowd, Barnes, Ridgway and Fish*—4.
*Negative—Commissioner Baldwin*—1.
*The President not voting.*

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, September 29, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works, Commissioners* BALDWIN, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of September 22d were read and approved.

Commissioner DOWD, from the Committee of Finance and Audit, reported their examination and audit of voucher No. 2020, sub-estimate for work done at Shaft No. 19½, by Heman Clark, $4,500; voucher No. 2021, final estimate for culvert at Shaft No. 20, by Heman Clark, $1,234.20; also their examination and audit of bills contained in vouchers Nos. 2023 to 2036, inclusive, amounting to $735.68, and the same were approved and ordered certified to the Comptroller for payment.

Commissioner SPENCER, from the Committee on Real Estate, presented the following report:

"NEW YORK, September 28, 1886.

*To the Aqueduct Commissioners:*

Gentlemen,—A meeting of this Committee was held on the 24th inst., and in view of the fact that a vacancy exists, it was decided to defer the permanent organization of the Committee until that vacancy had been filled. Therefore the Committee was temporarily organized, and has made an examination of the business and matters relating to real estate which were transferred to them from the late Special Committee, and now make the following report thereon.

We find that there is much work yet to be done in connection with the acquirement of lands and rights for the new Aqueduct and reservoirs, which work, briefly stated, is as follows:

1st. The preparation of matter required by the Counsel to the Corporation in the proceedings to acquire lands for the East Branch Reservoirs was very nearly completed when it was found necessary to make some changes, and to include additional lands for highways and other purposes. This caused unavoidable delay, and will require further time for completion.

2d. Under the advice of counsel, as set forth in their communications of the 13th and 16th inst., there are many additional parcels of land and property rights to be obtained in Westchester County, and there are also lands required there for additional shafts and for the open cut at Shaft Site No. 8.

3d. Negotiations are in progress with the owners of the parcels of land between the Harlem River and the north line of the city, for an enlarged easement right which will give to the city all that is deemed necessary, and under conditions which will greatly reduce the amount of the awards for said easement rights.

4th. There are also additional lands and rights yet to be acquired on the Manhattan Island Section, for which a large part of the preparatory work has been done, but further time is required to complete it.

Up to this time the work above referred to has been carried forward as far and as rapidly as was possible, and it is very important that what yet remains to be done should be pushed to an early completion. This can best be accomplished by retaining the services of Mr. McCulloh who has done the work so far, and being familiar with all its details, and experienced in its performance, can complete it with greater dispatch and to better advantage than any one else.

We therefore recommend that the term of service of Mr. McCulloh as Special Assistant to the Chief Engineer be extended to the first of January next.

We also recommend that we be authorized to make a temporary arrangement for the small Room No. 206, adjoining the rooms of the Commissioners, for the use of the Committee, and keeping of the maps, records and papers intrusted to its custody."

On motion of Commissioner RIDGWAY, action upon said report was deferred until the Chief Engineer could be present.

A communication was received from the Commissioner of Public Works, submitting a plan showing all of the

lands upon the line of the new Croton Aqueduct between One Hundred and Forty-fifth street and Convent avenue, and One Hundred and Fifty-second street and Tenth avenue, and also of the adjacent parcel composing the city lot through which the Aqueduct passes; in accordance with the resolution passed September 15, 1886.

The communication and plan referred to were referred to the Chief Engineer and the Committee on Real Estate.

The COMMISSIONER of PUBLIC WORKS presented a communication received by him from Thomas Faye, calling attention to the enormous blasts in the Aqueduct tunnel at St. Nicholas place and One Hundred and Fifty-second street.

On motion of Commissioner RIDGWAY, the communication was referred to the Chief Engineer, with instructions that he take the necessary steps to prevent dangerous blasting in the locality referred to.

The Secretary submitted a statement received from O'Brien & Clark and Heman Clark, contractors, addressed to the Aqueduct Commissioners, again calling their attention to the non-payment of their estimates, and that they are now overdue ten days. They reiterate their complaint of the loss and damage they are sustaining in not receiving their pay promptly from the City for work done, and that they will hold the City responsible for all damages they have sustained through the City's neglect to fulfill their part of the contract.

On motion of Commissioner DOWD, the communication was referred to the Committee of Finance and Audit, and

the Secretary directed to transmit a copy of the same to the Comptroller.

The Comptroller, under date of September 25, 1886, reports the issue of warrants for the payment of the following vouchers not certified to by the Aqueduct Commissioners:

| | |
|---|---|
| Edwin Dobbs | $100 00 |
| Benj. P. Fairchild | 50 00 |
| E. H. Martine | 50 00 |

for services on the New York County Section; which was ordered placed upon file.

In compliance with the resolution adopted on the 22d inst., the Secretary reported that from the inquiries made by him and from the replies received from each of the clerks employed in the Secretary's office, that none of the members of the clerical force have been or are now performing private services for any of the Commissioners.

On motion of Commissioner DOWD, the same was ordered placed upon file.

The Secretary submitted a communication from the Comptroller, requesting the Aqueduct Commissioners to prepare and send to the Board of Estimate and Apportionment before the 30th of September an estimate in detail of the amounts required to pay the expenses of conducting the business of the Commission in and for the year 1887.

On motion of Commissioner SPENCER, the communication was referred to the Committee of Finance and Audit, with the request that they take counsel with the Counsel

to the Corporation, and advise with the Comptroller about the subject matter therein contained.

The Secretary then submitted the final estimate for work done and performed by Charles Peterson under an agreement made by him with the Aqueduct Commissioners on the 27th day of July, 1886, for the construction of a crib dock upon the westerly side of the Harlem River at the crossing of the new Croton Aqueduct, near Shaft No. 25, in the Twelfth Ward of the City of New York, and in connection therewith submitted the following resolution:

*Whereas*, The Chief Engineer of this Commission has certified in writing that in his opinion Charles Peterson has completely performed his agreement made with this Commission on the 27th day of July, 1886, for the construction of a crib dock upon the westerly side of the Harlem River at the crossing of the new Croton Aqueduct, near Shaft No. 25 of said Aqueduct, in the Twelfth Ward of the City of New York, and has stated from actual measurements the whole amount of work done and materials furnished under and according to the terms of said agreement, and of the true value thereof, and said Charles Peterson having furnished to this Commission satisfactory evidence that the claims of all persons who have done work or furnished materials under said agreement have been duly paid or satisfactorily secured; now, therefore, be it

*Resolved*, That the Aqueduct Commissioners do accept the work done and materials furnished by Charles Peterson under his agreement made with this Commission on the 27th day of July, 1886, for the construction of

a crib dock upon the westerly side of the Harlem River at the crossing of the new Croton Aqueduct, near Shaft No. 25, in the Twelfth Ward of the City of New York, and that a proper voucher for the final payment for work done and materials furnished under said agreement be approved by the Commissioners and certified to the Comptroller for payment.

On motion of Commissioner DOWD, the resolution was unanimously adopted.

The Secretary then submitted the final estimate for work done and performed by O'Brien & Clark under an agreement entered into by them with the Aqueduct Commissioners on the 17th day of September, 1885, for the construction of a culvert across the dumping grounds of Shaft No. 23, in the Twenty-fourth Ward of the City of New York, and in connection therewith presented the following resolution:

*Whereas*, The Chief Engineer of this Commission has certified in writing that in his opinion O'Brien & Clark have completely performed their agreement made with this Commission on the 17th day of September, 1885, for the construction of a culvert across the dumping grounds at Shaft No. 23, in the Twenty-fourth Ward of the City of New York, and has stated from actual measurements the whole amount of work done and materials furnished under and according to the terms of said agreement, and of the true value thereof, and said O'Brien & Clark having furnished to this Commission satisfactory evidence that the claims of all persons who have done work or furnished

materials under said agreement have been duly paid or satisfactorily secured; now, therefore, be it

*Resolved,* That the Aqueduct Commissioners do accept the work done and materials furnished by O'Brien & Clark under their agreement made with this Commission on the 17th day of September, 1885, for the construction of a culvert across the dumping grounds at Shaft No. 23, in the Twenty-fourth Ward of the City of New York, and that a proper voucher for the final payment for work done and materials furnished under said agreement be approved by the Commissioners and certified to the Comptroller for payment.

On motion of Commissioner SPENCER, the resolution was unanimously adopted.

Commissioner DOWD, from the Committee of Finance and Audit, made the following report, out of its regular order:

" *To the Aqueduct Commissioners:*

Gentlemen,—At the meeting of the Aqueduct Commissioners on the 22d inst. it was

*Resolved,* That the President of this Commission be requested to inquire and report to this Commission at its next regular meeting:

FIRST.—Whether any member of this Commission has lived in the building known as the 'Tarrytown Headquarters' of the Commission; and if so, for how long a time, and whether at the expense of the Commission or any of its employees.

SECOND.—Whether any member of the Commission has

kept his private horse at the expense of the Commission. If so, for how long a time.

THIRD.—Whether any member of the Commission authorized the purchase of the furniture at the expense of the Commission for a room to be occupied by him in the Tarrytown Headquarters, and whether such purchase (if any) was approved or disapproved by the Finance Committee or the Commission.

And that he submit, at the same time, any records in this office bearing upon these matters.

This resolution being referred to the Committee of Finance and Audit, with a request that they report at the next meeting of the Commissioners, the Committee now have to report:

That the President and Commissioner Fish appeared before the Committee, and in reply to the resolution the President submitted the following statement:

*To the Committee on Finance and Audit:*

Gentlemen,—I make this brief statement in regard to the matter referred to you for inquiry.

I commenced to use my horse and equipment in the Aqueduct service in connection with my duties as Aqueduct Commissioner as early as June, 1883. I have used the same almost exclusively in the Aqueduct service since that period until last July. During that time the whole expense of keeping said equipment has exceeded $500 per annum, that has been paid by me, and for which I have presented no claim or account against the Aqueduct Commissioners. During the summer of 1884, say from the 15th of June to the 15th of September, I kept my horse, buggy, harness and saddle at the stables of the Aqueduct

Commission at Tarrytown, and the same was used there and in that vicinity in the Aqueduct service by me or by some of the engineers or employees whenever required. Every expense of feed, shoeing and repairs incurred thereby during this summer was paid by me, and no claim for the same was ever made against the Aqueduct Commission. If it is deemed important or necessary by you, I will furnish proof that all these bills were paid by me personally.

In regard to my living at the headquarters, I would say that during the summer of 1884 I was chairman of the Committee on Construction, and when it was necessary and convenient for me to make the offices at Tarrytown my point of departure each morning and return each evening on the work of the Aqueduct, I occupied a furnished room in these offices for a sleeping room. The expenses of my personal board and attendance, when there and on the work, was paid by me, and no claim ever made by me for reimbursement of the same from the Aqueduct Commission.

According to my memory in the premises, I occupied the room in question during the summer of 1884 for about two weeks, and subsequently on two or three separate occasions I occupied the same when engaged upon Aqueduct business and found it convenient to remain there over night.

Dated New York, September 28, 1886.

(Signed) JAMES C. SPENCER.

We find that the President did occupy a room in the Tarrytown Headquarters while engaged on Aqueduct work; that he did keep a horse in the stable belonging to the Aqueduct Commissioners, at his own expense, which

was used by him, and during his absence by some of the engineers employed upon the work; that he did not live at the expense of the Commission or any of its employees, and we find one voucher for $25.96, and another for $18.50, which represent the payment for furniture in use at the headquarters at Tarrytown, and we find that the above bills were duly audited by the Committee of Finance and Audit.

The President making no denial of the occupancy of a room, or the quartering of his horse, but producing his reasons justifying the act, we are of the opinion that he was perfectly justified in so doing, and the Committee ask to be discharged from any further consideration of the subject."

In connection with the report Commissioner DOWD offered the following resolution, and moved its adoption:

*Resolved*, That the Board approve the findings of the Committee, and discharge them from any further consideration of the subject.

The resolution was adopted; Commissioner Fish voting in the negative.

The Chief Engineer being present, Commissioner RIDGWAY moved that the report of the Committee on Real Estate, which had been laid on the table, be then taken up.

Commissioner SPENCER moved the adoption of the same.

Commissioner RIDGWAY stated that he meant to oppose its adoption, and that he desired his objections entered

upon the minutes, together with such statements as might be made by the Chief Engineer.

In answer to a question of Commissioner Ridgway, the Chief Engineer stated that he was not familiar with all of the duties performed by Mr. McCulloh, but that an assistant, acting in a clerical capacity, as Mr. McCulloh frequently did, was worth from $1,800 to $2,000 per annum; but that when he performed services as an expert in the valuation of real estate and the like, he was worth considerable more ; whereupon Commissioner Ridgeway said that the Chief Engineer should be familiar with the duties of all of his subordinates, and that he thought the Committee itself should assume the responsibility of purchasing lands, etc., and that the secretary of that Committee should act under their direction. If the Committee intended to have Mr. McCulloh perform their duties, then a new committee should be appointed.

Commissioner Ridgway then called the attention of the Board to the fact that Mr. McCulloh was a non-resident of the State of New York, and that under the law he was ineligible, and could not hold a civil office; that he believed the salary paid Mr. McCulloh was excessive, inasmuch as the Consulting Engineer to the Engineer-in-Chief only receives $5,000 per annum; and that it would be ridiculous to pay a subordinate $6,000 per annum; which belief seemed to be coincided in by the Chief Engineer, who is his superior officer. That he was not an engineer, and therefore not a proper person to hold a position as assistant to the Chief Engineer.

Commissioner NEWTON, seconded by Commissioner RIDGWAY, moved that the matter be laid over for one week.

The motion was afterwards withdrawn; and Commissioner NEWTON then moved that the report of the Committee be so amended as to continue the employment of Mr. McCulloh for the time being; and that the duration of his term of service shall be definitely fixed at the meeting of the Commissioners to be held two weeks hence.

The report of the Committee, as amended, was then adopted by the following vote:

*Affirmative—Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioner Baldwin*—4.
*Negative—Commissioners Ridgway and Fish*—2.

The COMMISSIONER OF PUBLIC WORKS then moved that the Commissioners proceed to fill the vacancy on the Committee on Real Estate. Carried.

The ballot being taken, resulted in the selection of Oliver W. Barnes, and the Chair declared that he was duly elected as a member of the Committee on Real Estate.

Commissioner SPENCER then moved that a Special Committee of three be appointed by the Chair to take into consideration the character and value of the services rendered by Mr. McCulloh, and to report upon the same.

The Chair then appointed Commissioners Spencer, Newton and Barnes as such Committee. (Vice-President Dowd in the Chair.)

Commissioner FISH then offered the following resolution:

*Whereas*, The Commission, on August 11th, adopted the following resolution:

" *Resolved*, That the President be requested to communicate with Mr. H. S. Craven, late Construction Engineer, and request him to return at once all the books, papers, documents or other property in his possession or under his control and belonging to this Commission;" therefore

*Resolved*, That the President be requested to submit to this Commission copies of correspondence that have passed between Mr. Craven and himself, in conformity with the resolution of the Commission.

On his motion, the same was unanimously adopted.

Commissioner FISH next offered the following resolution, and moved its adoption:

*Resolved*, That this Commission will not fill any positions in the Engineering Corps above the grade of Chainman without first having requested from the Chief Engineer the names of suitable persons to fill such positions.

The same was lost by the following vote:

*Affirmative—Commissioners Dowd, Ridgway and Fish*—3.
*Negative—Commissioners Spencer and Baldwin and the Commissioner of Public Works*—3.

Commissioner FISH then offered the following resolution, and moved its adoption:

*Resolved*, That the Committee of Finance and Audit be requested to refuse to approve any bill hereafter presented for meals furnished members of the Commission.

The same was adopted; Commissioner Dowd voting in the negative.

Commissioner FISH next offered the following resolution, and moved its adoption:

*Resolved*, That hereafter no Commissioner shall be permitted to live in any of the buildings rented by this Commission or to stable his horse in any of said buildings.

The resolution was adopted; Commissioner Dowd voting in the negative.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, October 6, 1886, at 2 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works*, and *Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* BIRDSALL of the Department of Public Works.

The meeting was opened for public hearing pursuant to the following notice:

" AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, NO. 280 BROADWAY,
NEW YORK, September 20, 1886.

PUBLIC HEARING.

*To whom it may concern :*

Whereas, In the progress of the work upon the new Croton Aqueduct, it has become apparent to the Aqueduct Commissioners that the best interests of the City requires that for the proper construction, future protection and

maintenance of the said Aqueduct the City should acquire the fee simple in lieu of the easements heretofore acquired through the lands upon the line of the new Croton Aqueduct, between One Hundred and Forty-fifth street and Convent avenue, and between One Hundred and Fifty-second street and Tenth avenue; and that the fee simple of the adjacent parcel, composing the city lot through which said portion of the Aqueduct passes, should also be acquired; now, therefore, in accordance with the requirements of Chapter 490 of the Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that a full opportunity will be afforded them to be heard in relation to the plans now under consideration by the Aqueduct Commissioners for the acquirement of the fee simple in lieu of the easement heretofore acquired in the lands upon the line of the new Croton Aqueduct, between One Hundred and Forty-fifth street and Convent avenue, and between One Hundred and Fifty-second street and Tenth avenue; and also for acquiring the title to the parcel composing the city lot through which said portion of the Aqueduct passes; the said public hearing to be at the above-named office of the Aqueduct Commissioners on Friday, the 1st day of October, 1886, at 10 o'clock A. M., and upon such other days thereafter to which said hearing may be adjourned.

By order of the Aqueduct Commissioners.

JOHN C. SHEEHAN,
*Secretary.*"

A public hearing and meeting of the Aqueduct Commissioners was held pursuant to the foregoing notice; the meeting was opened and held open by the President of the

Aqueduct Commission until a majority of the Commissioners assembled.

Many citizens owning land in the vicinity of the premises described in said notice appeared and examined the maps of the same, but no objections were raised or made against the proposed acquirement of said premises in fee simple in lieu of the easement heretofore acquired.

On motion of Commissioner DOWD, the said public hearing was adjourned, to be held at the same place on Wednesday, October 6th, at 2 o'clock P. M.

On the 6th inst. Mr. Clifford Barbee appeared before the Commissioners with regard to his property in One Hundred and Forty-sixth street, and after hearing his statements, no one else desiring to be heard, on motion of Commissioner DOWD the public hearing was closed, and the regular order of business taken up.

The minutes of the Stated Meeting of September 29th were read and approved.

Commissioner BARNES offered the following resolution:

*Whereas,* The report of the Committee on Construction submitted to the Aqueduct Commissioners on Wednesday, September 22d, providing that the meetings of the Committee on Construction shall be open to the visitation of the Aqueduct Commissioners, their Secretary, the Chief Engineer and his Principal Assistants; therefore

*Resolved,* That the following resolution, adopted on the same day, be and the same is hereby rescinded.

"*Resolved*, That the minutes of the Committee on Construction be read at the regular meetings of this Board for their information."

The resolution was adopted; Commissioner Fish voting in the negative.

The Committee of Finance and Audit, by its Chairman, William Dowd, reported the examination and audit of bills contained in vouchers Nos. 2042 to 2056, inclusive; which were approved and ordered certified to the Comptroller for payment.

The Committee next made report as follows:

"The Committee of Finance and Audit, to whom was referred the communication of the Comptroller requesting the Aqueduct Commissioners to prepare and send to the Board of Estimate and Apportionment an estimate of the amount required to pay the expenses of the Commission for the year 1887, report that they have considered the matter of said request, and that in their judgment the sum of five million dollars ($5,000,000) will be required to meet the expenses of the Commission for the year 1887, and that the Secretary be directed to transmit said estimate to the Comptroller."

Recommendation adopted.

The Committee on Construction, by its Chairman, Oliver W. Barnes, made the following report, dated 5th inst.:

"The Committee on Construction respectfully report, that upon the request of the Chief Engineer for an appro-
ation of $500 for the purchase of disc-diagram machines

and a level which are required upon the work of the new Aqueduct, the Committee recommend the adoption of the following resolution:

*Resolved*, That the sum of $500 be appropriated to cover the cost of five (5) disc diagram machines and one (1) level which are required upon the work of the new Aqueduct."

Adopted.

The Committee next offered the following report, and the same was unanimously adopted:

"That the question of sinking an additional shaft between existing Shafts Nos. 13 and 14, at or near Station 792+50, to be known as 'Shaft No. 13½,'" having been considered by this Committee to be necessary for the proper ventilation and prosecution of the work, recommend its construction, and the adoption of the following resolution:

*Resolved*, That on the reception of the recommendation of the Chief Engineer and the Committee on Construction, the Aqueduct Commissioners deem it advisable and necessary that an additional shaft be located and constructed on the line of the new Aqueduct between Shafts Nos. 13 and 14, at or near Station 792+50, that shall be known as 'Shaft No. 13½;' and that sufficient land be taken or purchased for the same, and for a dumping ground adjacent thereto; and the Aqueduct Commissioners hereby authorize and direct the construction of said shaft, and the taking or purchasing the necessary land for said shaft, and its adjacent dumping ground; and the Committee on Con-

struction and the Chief Engineer are hereby directed to have the said shaft located and the necessary land for said shaft and dumping ground surveyed and mapped immediately, and reported to the Commissioners for their action in the premises. Also that the said Committee shall prepare and submit to the Commissioners the form of a contract or agreement for the construction of said shaft that shall provide, among other things, that the construction of said shaft, and the work on the same, may be discontinued and stopped at any time by the order of the Commissioners; and in case of such discontinuance, that the contractors shall only be entitled to and receive pay for the work done up to the time of such discontinuance and stoppage."

Adopted.

Also that the Committee on Construction respectfully report that upon the request of the Chief Engineer for an appropriation of $460 for the purpose of purchasing such instruments as may be required upon the work of the Aqueduct, the Committee recommend the adoption of the following resolution:

*Resolved*, That the sum of $460 be appropriated for the purpose of purchasing the instruments required by the requisition of the Chief Engineer, dated October 6, 1886.

Adopted.

Also that the Chief Engineer having requested an appropriation of $500 for the purpose of mounting and binding contract drawings, and for models of difficult con-

structions in masonry, this Committee recommends the adoption of the following resolution:

*Resolved*, That the sum of $400 be appropriated for the purpose of mounting and binding contract drawings for gate houses on Sections 1 and 15, and for Sections 12, 13 and 14; also an appropriation of $100 for models of difficult construction in masonry at intersections of shafts with Aqueduct arch.

Adopted.

Also that a communication from the Chief Engineer, addressed to the Committee on Construction, was read at their meeting of the 1st inst., and ordered to be read to the Commissioners and returned to them for filing.

The said communication was read, and the recommendation of the Committee approved.

Also that in compliance with your resolution of the 22d September last, we now submit a report of the Chief Engineer, together with a plan prepared by him, of the lands upon the Ravensdale road in Westchester County, required for the additional shaft and dumping grounds to be known as "Shaft 15½," and we recommend the adoption of the following resolution:

*Resolved*, That the plan this day submitted to us of the lands required to be taken in fee for the construction of an additional shaft near Ravensdale road, in the County of Westchester, and now designated "Shaft Site No. 15½," be and the same is hereby approved, and the Committee on Real Estate is hereby directed and empowered to immediately take such steps as may be

necessary to acquire the fee in the lands shown upon said plan, either by agreement with the owners or by proceedings for the condemnation of said lands; subject to the approval of this Commission.

Adopted.

The Committee on Real Estate, by its Chairman, James C. Spencer, made the following report:

"*Whereas*, It is the sense of the Aqueduct Commissioners that it is for the best interest of the City that the fee simple should be acquired of the lands hereinafter described, in lieu of the easement heretofore acquired through the lands upon the line of the new Aqueduct between One Hundred and Forty-fifth street and Convent avenue and One Hundred and Fifty-second street and Tenth avenue; and

"*Whereas*, Upon request of the said Commissioners, the Commissioner of Public Works heretofore prepared and submitted to them the plan hereinafter described for modifying the plans theretofore adopted by taking the fee in lieu of the aforesaid easement in said lands; and

"*Whereas*, Full opportunity to be heard in relation to the said plan for taking of said fee has heretofore been given to all persons interested, due public notice of said hearing having been given; now, therefore, be it

"*Resolved*, That for the more efficient carrying out of the provisions of Chapter 490 of the Laws of 1883, we hereby approve and adopt the plan submitted to us by the Commissioner of Public Works, and now designated 'Final Plan Sheet No. 5 C,' for the taking of the fee simple of all those parcels of land in the Twelfth Ward of the City

of New York, which are known and described by their ward and block numbers, as follows:

Lots No. 15, 16, 17, 48, 49 and 50, of block 1072.

Lots No. 15, 16, 17, 48, 49 and 50, of block 1073.

Lots No. 15, 16, 17, 48, 49 and 50, of block 1074.

Lots No. 15, 16, 17, 47, 48 and 49, of block 1075.

Lots No. 15, 16, 17, 47, 48 and 49, of block 1076.

Lots No. 15, 16, 17, 49, 50, 51 and 53, of block 1077.

Lots No. 4, 5, 6, 7, 8, 9, 10, 11, 12, 63, 64, 65, 66 and 67, of block 1078.

Also all that part of lot No. 3, of block 1078, which is designated 'Parcel No. 20' upon the property map filed in the office of the Register of the City and County of New York, on the 28th day of August, 1885.

Also all that parcel of land forming a part of One Hundred and Forty-eighth street between Tenth avenue and St. Nicholas avenue, which is designated upon the aforesaid property map as 'Parcel No. 51.'

"*Resolved*, That the Commissioner of Public Works be and he is hereby requested to prepare and submit to the Aqueduct Commissioners for their approval and adoption, the six similar property maps required by Section 4 of the aforesaid act, showing thereon the above described lands to be taken in fee."

On motion of Commissioner BARNES, the report of the Committee was unanimously adopted.

Also that we have to report that at a meeting held this day (October 4th), all the members being present, the Committee on Real Estate organized by the election of Commissioner Spencer as Chairman of the Committee;

and that Mr. James W. McCulloh will temporarily act as Secretary of the Committee.

Action approved.

The PRESIDENT submitted the following report:

"On the 26th of May last a resolution was adopted by you, of which the following is a copy:

'*Resolved*, That the President is hereby requested to report to the Aqueduct Commissioners at an early day a review and report of the work of the Commission to the first day of June, 1886, that shall include the plans and work of construction to that date and the progress therein, and the plans and projects relating to said Aqueduct and the Dams and Reservoirs now under consideration before the Commission that have not been adopted and approved; and the Secretary and Chief Engineer are hereby directed to report to the President such information as he shall require for the said review from their respective offices.'

The report and review required by this resolution embraced statistical information, maps and drawings from the Chief Engineer that involved such an amount and class of labor in his department that he has found it impracticable to prepare and furnish to the present time. The Chief Engineer states that he can now progress with this work and report the same to the President at an early day; but he makes this suggestion--that appears to me to be worthy of your consideration:

That he should continue the plans and work to the close of the year, so that the report called for by the said resolution should cover the year 1886, instead of until the 1st

of June, 1886; and if it is deemed desirable to the Commission that the plans and work of construction to the latter date should be distinctly stated and described, that it should appear in an appendix to the report.

If the Commissioners approve of this suggestion, and conclude that the work to the close of 1886 shall be included in this report, the resolution should be amended by inserting, in place of the words 'the first day of June, 1886,' the words 'to and including the 31st day of December, 1886.'

All of which is respectfully submitted for your consideration."

Commissioner DOWD moved that the resolution referred to in said report be amended by inserting, in place of the words "the first day of June, 1886," the words "to and including the 31st day of December, 1886," and that the report of the President be placed upon file.

Adopted.

The Committee on By-Laws, by its Chairman, William Dowd, presented the following Rules of Order for adoption and observance, as provided in the last clause of Article I. of the By-Laws, and recommended that the same be adopted and printed with the By-Laws; and the same were unanimously adopted.

RULES OF ORDER.

FIRST.—The President shall preside at all meetings of the Commissioners, and direct and conduct the proceedings. In case of his absence the Vice-President shall act in his place. In case of the absence of both of said officers, the Commissioners shall appoint a President *pro tem.* for

that meeting, or until the appearance of the President or Vice-President.

When the Secretary is not present at any meeting the Commissioners shall appoint a Secretary *pro tem.* for that meeting, or until the Secretary appears.

SECOND.—The President or Vice-President may substitute any other member to preside in his place, but such substitution shall not continue beyond the meeting at which it shall be made.

The affirmative vote of not less than four Commissioners in favor of any resolution or proposition before the Commissioners shall be required for its adoption, except as provided in Rule 10.

THIRD.—The order of business at every Stated Meeting (except where otherwise specially ordered) shall be as follows:

FIRST.

Reading the minutes of the previous Stated Meeting, and any Special Meeting held since the last Stated Meeting, and consideration of the same by the Commissioners. The reading of the minutes may be dispensed with by unanimous consent of the members of the Commission present.

SECOND.

*Reports of Standing Committees.*

1. Reports of Committee of Finance and Audit.
2. Reports of Committee on Construction.
3. Reports of Committee on Real Estate.

THIRD.

Reports of Special Committees.

FOURTH.

1. Reports from the President.
2. Reports from the Chief Engineer.
3. Reports from the Commissioner of Public Works.
4. Reports from the Comptroller.
5. Reports from the Secretary.

FIFTH.

Communications to the Aqueduct Commissioners received and considered.

SIXTH.

Unfinished business from the table.

SEVENTH.

New business.

Upon the presentation of any of the foregoing business that requires reference to any Standing Committee or requires filing; the President shall order the same so referred or filed, unless the Commissioners shall otherwise direct.

The regular order of business may be suspended at any time by a vote of a majority of the Commissioners present.

FOURTH.—At any Special Meeting of the Commissioners the presiding officer shall state the special matter or matters to be considered at such meeting, and no other than such special matters shall be considered at such meeting except by the unanimous consent of the Commissioners present.

FIFTH.—Resolutions offered at any meeting shall be reduced to writing by the mover, if requested by the President or two Commissioners, and shall not be considered

until seconded by one of the Commissioners other than the mover.

SIXTH.—Motions to refer, to lay on the table, to adjourn, shall always be in order, and, except the motion to refer, shall be taken without debate. It shall require a vote of two-thirds of the Commissioners present to order the previous question.

A call or motion to adjourn into Executive Session or Council shall be in order only when no other question or motion is before the Commissioners for consideration.

All votes of the Commissioners at any meeting shall be taken by ayes and noes, at the request of any Commissioner, and shall preclude further debate, after the beginning of the roll call.

SEVENTH.—Every member who shall be present when a question is put shall vote for or against the same, unless excused by a majority vote of the Commissioners.

EIGHTH.—A motion to reconsider a vote or resolution of the Commissioners may be made by any member who voted with the majority, at the same meeting or at the next succeeding Stated Meeting.

NINTH.—No member shall speak more than twice on the same question without leave of a majority of the Commissioners present, nor more than once until every member choosing to speak shall have spoken; nor shall any Commissioner speak more than ten minutes at any one time upon any subject under consideration, unless by consent of a majority of the Commissioners present.

Every member previous to his speaking upon any question under debate, shall rise and address the President,

and if two or more members rise at one time the President shall designate which is entitled to the floor.

TENTH.—All questions of order and parliamentary usage shall be decided by the presiding officer, subject to appeal to the Commissioners. Such appeal cannot be debated when the decision relates to indecorum or the transgression of the rules of speaking, or the priority of business, or made while the previous question is pending.

The presiding officer may state his reasons for his decision before the question is put on the appeal. The form of appeal shall be as follows: "Shall the decision of the Chair stand as the decision of the Commissioners?" and if not affirmed by a majority of the Commissioners present, the decision of the Chair shall be reversed. The presiding officer shall be entitled to vote upon the question.

Questions of order and parliamentary usage not covered by these rules shall be decided by the presiding officer and the Commissioners in accordance with Cushing's Manual of Parliamentary Practice.

The Committee also reported: "That at their meeting held on the 4th inst. it was decided to recommend to the Commissioners the adoption of the following resolution:

*Resolved*, That the following be added to the By-Laws.

> 'That the Commission may at any Stated Meeting, upon notice given at a previous Stated Meeting, repeal, amend or suspend any by-law or rule of order.'"

Adopted.

The Chief Engineer reported that the lines through the open cut at Shaft 8 and the north heading of Shaft 9 have

met, and came together with a variation of just one-eighth of an inch; and that the lines were established under Division Engineer McIntyre, and were executed by Assistant Engineer Lockwood and Rodman Cunningham, who are deserving of a great deal of credit for their accurate alignments and grades, and on motion of Commissioner BARNES the same was ordered to be placed upon file.

The Chairman of the Committee of Finance and Audit, William Dowd, presented to the Board a communication received by him from the Comptroller, wherein he states that the objections to the application of the Chief Engineer to have the paymaster pay the members of the Engineer Corps along the Aqueduct line in bank bills instead of in checks seemed to be insurmountable, and that he reluctantly declined to comply with the request.

On motion of Commissioner BARNES the said communication was ordered to be placed upon file.

The Comptroller, under date of October 2d, gave notice of the issue of warrants for vouchers not certified to by the Aqueduct Commissioners, and appertaining to

| | |
|---|---|
| Manhattan Island Section | $14,149 05 |
| New York County Section | 933 52 |
| Westchester County Section | 236 19 |

— which was ordered placed upon file, and entered upon the books of the Commission.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, October 13, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works, Commissioners* BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of the 6th inst. were read and approved.

The Committee of Finance and Audit reported their examination and audit of voucher No. 2057, being final sub-estimate of O'Brien & Clark for constructing culvert at Shaft No. 23, amounting to $320.89, and voucher No. 2058, being final sub-estimate of Charles Peterson for constructing crib dock near Shaft No. 25, amounting to $3,694.60; also their examination and audit of bills contained in vouchers Nos. 2059 to 2072 inclusive, and on motion of

Commissioner DOWD the same were approved, and ordered certified to the Comptroller for payment.

The Committee next made report, that having considered the claim of Charles Peterson for $701.03 for expense of removing solid rock under water in Harlem River, at the mouth of blow-out for new dock at Shaft No. 25, and for expense for delay of dredge caused by encountering solid rock, and finding no authority from the Commission for such expenditure, they were unable to approve of the same, and report the matter of said claim to the Comsion for its action.

On motion of Commissioner BARNES, the matter was referred to the Committee on Construction.

The Committee on Construction made report, that upon the request of the Chief Engineer for an appropriation of $150 for the purchase of one pyrometer and other instruments to be used in testing the castings of the 48 inch mains, and for floor covering of the office at One Hundred and Twenty-fifth street, the Committee recommend that authority be given the Chief Engineer to make such purchases, the cost thereof not to exceed the amount above stated.

Recommendation approved.

The Committee next made report, that upon the request of the Chief Engineer for an appropriation of $1,100 for the purchase of coal for the Engineers' offices and Tarrytown headquarters, including First, Second, Third and Fourth Divisions; the Committee recommended the adop- following resolution:

*Resolved*, That the Chief Engineer be authorized to advertise for proposals for furnishing coal for the Engineers' offices, and that he purchase the same from the lowest and best bidders, or as much as may be required, not exceeding 165 tons.

Adopted.

The Committee next recommended the passage of the following resolution:

*Resolved*, That the special contract between the Aqueduct Commissioners and O'Brien & Clark for the construction of Shaft No. 12C having been executed by said O'Brien & Clark and the Aqueduct Commissioners, and the work substantially completed, the execution of the same by the sureties is waived by the Aqueduct Commissioners as being unnecessary under the circumstances.

Adopted.

The Committee on Real Estate made the following report, dated 13th inst.:

The Commissioner of Public Works having prepared the six similar property maps of additional lands to be taken in fee, between One Hundred and Forty-fifth street and Convent avenue and One Hundred and Fifty-second street and Tenth avenue, and submitted the same for your approval, we recommend the adoption of the following resolutions of approval of said maps; and that when they have been certified, they be immediately transmitted to the Counsel to the Corporation, with request that he commence at once the proceedings required by the act for the taking of the said lands in fee:

*Whereas*, In compliance with the requirements of Section 4, Chapter 490 of the Laws of 1883, the Commissioner of Public Works has prepared and now submits to us the six similar property maps of additional lands to be taken in fee simple for the new Croton Aqueduct and its appurtenances, and described as follows, to wit:

All those parcels of land in the Twelfth Ward of the City of New York, which are known and described by their ward and block numbers as follows:

Lots Nos. 15, 16, 17, 48, 49 and 50 of block 1072.

Lots Nos. 15, 16, 17, 48, 49 and 50 of block 1073.

Lots Nos. 15, 16, 17, 48, 49 and 50 of block 1074.

Lots Nos. 15, 16, 17, 47, 48 and 49 of block 1075.

Lots Nos. 15, 16, 17, 47, 48 and 49 of block 1076.

Lots Nos. 15, 16, 17, 49, 50, 51, 52 and 53 of block 1077.

Lots. Nos. 4, 5, 6, 7, 8, 9, 10, 11, 12, 63, 64, 65, 66 and 67 of block 1078.

Also all that part of lot No. 3 of block 1078 which is designated "Parcel No. 20" upon the property map filed in the office of the Register of the City and County of New York on the 28th day of August, 1885.

Also all that parcel of land forming a part of One Hundred and Forty-eighth street between Tenth avenue and St. Nicholas avenue which is designated upon the aforesaid property map "Parcel No. 51," all as the same are shown upon "Final Plan Sheet No. 5C," approved and adopted by us on the 6th day of October, 1886; now, therefore, be it

*Resolved*, That the above-named property maps this day submitted to us by the Commissioner of Public Works in accordance with Section 4, Chapter 490 of the

Laws of 1883, be and the same are hereby approved and adopted by us; and the Secretary is hereby directed to have the same duly certified by the Aqueduct Commissioners, as required by said section of said act, and to transmit Nos. 1, 2, 4, 5 and 6 of said maps, so certified, to the Counsel to the Corporation, with request that he cause Nos. 1 and 2 thereof to be filed in the office of the Registers of the City and County of New York and of the County of Westchester, and Nos. 4, 5 and 6 thereof to be delivered to the Commissioners of Appraisal, as required by said act.

Adopted.

The Special Committee composed of Commissioners Spencer, Barnes and Newton, appointed to inquire into and report upon the character and value of the service of James W. McCulloh, made report as follows:

"The Committee has held several meetings in the examination of the matter, and has adjourned to Friday the 14th inst. for further examination in the case, and your Committee ask further time for examination and final report, not exceeding two weeks, and suggest the adoption of the following resolution by the Commissioners:

*Resolved*, That the time for the report of the Special Committee appointed to examine and report upon the character and value of the service of James W. McCulloh be extended two weeks, and the time for the determination of the term of service of Mr. McCulloh by this Commission be postponed until the reception of the report of said Committee."

The resolution was adopted by the following vote:

*In the affirmative—Commissioners Spencer, Dowd, the Commissioner of Public Works, and Commissioner Barnes—4.*

*Negative—Commissioners Ridgway and Fish—2.*

A communication from Prof. C. F. Chandler, Dean of the Faculty of the School of Mines of Columbia College, was received from the President, which contained an application for copies of the working drawings and plans of the new Aqueduct for the use of said School of Mines.

The communication was read, and on motion of Commissioner DOWD was referred to the Chief Engineer, with instructions to comply with the application so far as practicable.

A communication was received from the Metropolitan Telephone and Telegraph Company, dated September 22d, making application for furnishing a telephone service for use between the various divisions of the Aqueduct.

The communication was read, and on motion of Commissioner DOWD was referred to the Committee on Construction.

The Comptroller, under date of 9th inst., gave notice of the issue of warrants for vouchers not certified to by the Aqueduct Commissioners for the New York County Section, amounting to $8,215.52, which was ordered to be placed upon file, and entered upon the books of the Commission.

Notices of lien were filed by the Repauno Chemical Company against Heman Clark, contractor, for material

furnished on Section A, amounting to $385.43; also for $320 for material furnished on Section B; and against O'Brien & Clark for material furnished on Section 9, amounting to $6,050.85, which were ordered placed upon file.

Commissioner RIDGWAY offered the following resolution:

*Resolved*, That the Real Estate Committee be directed to furnish this Commission, at the next meeting, a list showing the names of all persons with whom negotiations are being had for the purpose of purchasing lands, or any interest in lands for Aqueduct purposes, the quantity of such lands and the nature and extent of such negotiations.

Adopted.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, October 20, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of the 13th inst. were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos. 2087 to 2100 inclusive; and on motion of Commissioner DOWD the same were approved by the Commissioners, and ordered certified to the Comptroller for payment.

The Committee of Finance and Audit next recommended their report stating that the sum of $5,000,000 would quired to defray the expenses of the Commission for ear 1887, approved on the 6th inst., be reconsidered;

and on motion of Commissioner DOWD the same was so reconsidered.

The Committee then made the following report:

"The Committee of Finance and Audit report that after careful consideration they are satisfied that the sum of $7,000,000 will be required to meet the expenses of the Commission for the year 1887, and recommend that the Secretary be directed to transmit a corrected estimate for said amount to the Comptroller."

Adopted.

The Committee next made the following report:

*Whereas*, In the estimation of the Aqueduct Commissioners, the further sum of two million dollars will be required to defray the necessary and lawful current expenditures of said Commissioners; now, therefore, be it

*Resolved*, That the Comptroller of the City of New York be and he is hereby requested to raise the sum of two million dollars upon bonds of the City of New York in conformity with the requirements of Section 32, Chapter 490, Laws of 1883, of the State of New York, for the uses and purposes of the Aqueduct Commissioners, as set forth in said chapter and section of said law.

Adopted.

Also the following report:

"The Committee of Finance and Audit recommend the adoption of the following resolution:

*Resolved*, That the Purveyor be authorized to obtain proposals for furnishing coal for the Engineers' offices, and that he purchase the same from the lowest and best bidders, or as much as may be required, not exceeding 165 tons; and that the resolution adopted on the 13th inst. authorizing the Chief Engineer to purchase the same be, and the same is hereby, rescinded."

Adopted.

The Committee on Real Estate submitted a report in response to a resolution adopted on the 13th inst., asking for a statement showing the names of all persons with whom negotiations are being had for the purpose of purchasing lands, or any interest in lands for Aqueduct purposes; the quantity of such lands, and the nature and extent of such negotiations; which was ordered placed upon file, and the Secretary was directed to furnish a copy of the same to any Commissioner desiring it.

On motion of Commissioner SPENCER, the time of the Special Committee appointed to examine into the character and extent of the services of Mr. McCulloh was extended two weeks.

The Chief Engineer reported that the headings between Shafts Zero and One had met on the morning of the 15th inst., and that the difference between the lines was found to be only $1\frac{1}{16}$ inches, and stating that the work was done under Charles S. Gowen, Division Engineer, and the lines and grades run by Assistant Engineer Ridgway and his party, also that Shaft No. $16\frac{1}{2}$ was this day completed and timbered; which was ordered to be placed upon file.

A communication was received from the Commissioner of Public Works, transmitting the six similar property maps of the lands required from the line of the new Aqueduct between One Hundred and Forty-fifth street and Convent avenue and One Hundred and Fifty-second street and Tenth avenue; which was ordered to be placed on file.

The Comptroller, under date of 16th inst., gave notice of the issue of warrants for the payment of vouchers not certified to by the Aqueduct Commissioners, in favor of Martin B. Brown, Westchester County Section, $1,087.47; Cuyler Freeman, New York County Section, $200; which was ordered to be placed on file and entered upon the books of the Commission.

On motion of Commissioner SPENCER, the Secretary was directed to furnish the Commissioners of Appraisal for the New York County Section with a copy of the Atlas Map of property in the Twenty-fourth Ward of this City.

The Secretary submitted the final estimate for work done and performed by O'Brien & Clark under an agreement made with them on the 11th day of January, 1886, for the construction of a culvert across the dumping grounds at Shaft No. 19, in the City of Yonkers, and in connection therewith Commissioner SPENCER offered the following preamble and resolution:

*Whereas,* The Chief Engineer of this Commission has certified in writing, that in his opinion, O'Brien & Clark have completely performed their agreement made with this Commission on the 11th day of January, 1886, for the construction of a culvert across the

dumping grounds of Shaft No. 19, in the City of Yonkers, and has stated from actual measurements the whole amount of work done and materials furnished under and according to the terms of said agreement, and of the true value thereof, and said O'Brien & Clark having furnished to this Commission satisfactory evidence that the claims of all persons who have done work or furnished materials under said agreement have been duly paid or satisfactorily secured; now, therefore, be it

*Resolved*, That the Aqueduct Commissioners do accept the work done and materials furnished by O'Brien & Clark under their agreement made with this Commission on the 11th day of January, 1886, for the construction of a culvert across the dumping grounds of Shaft No. 19, in the City of Yonkers, and that a proper voucher for the final payment for work done and materials furnished under said agreement be approved by the Commissioners and certified to the Comptroller for payment.

Adopted.

The Newark Lime and Cement Company, by their attorneys, gave notice of the filing of a lien against O'Brien & Clark for $300, for materials furnished on Section 7 of the new Aqueduct; which was ordered to be placed on file.

A communication was received from the Rev. Dr. John C. Bliss, pastor of Washington Heights Presbyterian Church, protesting against Sunday work on the Aqueduct

in this City; which was read and referred to the Chief Engineer.

A communication was received from John Townsend, Esq., presenting his bill for $250 for professional services rendered in the matter of the contract with the Aqueduct Commissioners for the opening of Shaft No. 18½; and on motion of Commissioner BARNES the same was referred to the Committee of Finance and Audit.

Commissioner FISH offered the following resolution, and moved its adoption:

*Resolved*, That the Chief Engineer be directed to inquire into the accidents at Shafts Nos. 16 and 27, on October 18th and 19th, and report to this Commission the causes for the same, and what precautions should be taken to prevent the frequent accidents on the line.

Adopted.

Also the following resolution:

*Resolved*, That the Corporation Counsel be requested to report to this Commission whether it can fill the office of Secretary of the Real Estate Committee without the sanction of the Board of Estimate and Apportionment.

2d. Whether a resident of another State, and who is not a citizen and resident of this State, can be appointed to such office.

3d. Whether the office is not subject to the Civil Service Rules.

On motion of Commissioner RIDGWAY, the same was adopted by the following vote:

*Affirmative — Commissioners Dowd, Baldwin, Barnes, Ridgway and Fish*—5.
*Negative—Commissioner Spencer*—1.

The Commissioners then adjourned to meet on Monday, 25th inst., at 3 o'clock P. M.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF ADJOURNED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Monday, October 25, 1886, at 3 o'clock P. M.

---

Present:

*Commissioner* SPENCER, *The Commissioner of Public Works* and *Commissioners* BALDWIN and BARNES.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of the 20th inst. were read and approved.

The Committee on Construction reported in favor of the appointment of the following persons as Inspectors on the Aqueduct work:

| | |
|---|---|
| Gaylord Thompson, | Wm. Henry Langler, |
| H. H. Bowly, | Robert Montgomery, |
| Michael J. Hyland, | Collins Y. Peters. |

And on motion of Commissioner BARNES, the report of the Committee was adopted.

The Committee next submitted a report in reference to the immediate construction of the Muscoot Dam and Reservoir, which was read, and on motion of Commissioner BARNES was referred back to said Committee for further consideration.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, October 27, 1886, at 3 o'clock P. M.

---

Present:

*Commissioner* SPENCER, *The Commissioner of Public Works* and *Commissioners* BALDWIN, BARNES and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Adjourned Meeting of the 25th inst. were read and approved.

The Committee of Finance and Audit reported their examination and audit of voucher No. 2101, being final sub-estimate for culvert at Shaft No. 19, amounting to $1,737.89; also voucher No. 2102, being sub-estimate for work done at Shaft No. 12C, amounting to $4,500; both in favor of O'Brien & Clark; which ware approved and ordered certified to the Comptroller for payment.

Commissioner BARNES offered the following resolution out of its regular order, and moved its adoption:

*Resolved*, That the Chief Engineer be and he is hereby instructed to extend to the artist, engineers and guests from France, to the celebration of the unvailing of the Bartholdi Statue of Liberty, an invitation to examine the plans and visit the works of the new Croton Aqueduct.

Adopted.

The Committee on Construction made report, recommending the appointment of Gracie Sayre Roberts, James Quinn, Jr., and Edward Fox as Inspectors of Masonry; and on motion of Commissioner BALDWIN the recommendation of the Committee was approved, and the appointments made.

The Committee next made report, recommending the appointment of Frederick W. Frost and William B. Swan as Assistant Engineers, to be assigned to duty in the office of the Chief Engineer; also that J. H. Hawes be appointed a Laborer.

Commissioner BARNES moved the adoption of the report.

Commissioner BALDWIN moved as an amendment that the appointment of Frederick W. Frost be referred back to the Committee, with request that they consider the name of Mr. E. Shearman Gould for such appointment, instead of Mr. Frost, and that the balance of the report be adopted.

Carried.

The Comptroller, under date of 23d inst., gave notice of the issue of a warrant for the payment of a voucher not certified to by the Aqueduct Commissioners to Arthur H. Masten, Putnam County Section, for $500; which was ordered to be placed on file and entered upon the books of the Commission.

The Secretary submitted an opinion of the Counsel to the Corporation, in answer to a resolution adopted by the Commissioners on the 20th inst., asking whether the Commissioners could fill the office of Secretary of the Committee on Real Estate without the sanction of the Board of Estimate and Apportionment, etc., which was read, and on motion of Commissioner BALDWIN was referred to the Special Committee appointed to examine into the matter of the retention of Mr. McCulloh.

The Secretary submitted a communication from the Counsel to the Corporation giving notice of the filing of Map No. 1 of "Final Plan Sheet No. 5" in the office of the Register of the City and County of New York on the 16th inst.

A communication was received from the Civil Service Supervisory and Examining Board, addressed to the President, stating, that a requisition for 20 Inspectors of Masonry had been received by them, and that they certified the names of 13 persons from said list as eligible for appointment; and in connection therewith Commissioner NEWTON moved that the President be requested to ask for the sum of the marks in experience and technical knowledge, in addition to the general standing, as given in said list.

Carried.

Commissioner FISH offered the following resolution, and moved its adoption:

*Resolved*, That the office of the Aqueduct Commission be closed to-morrow (Thursday, the 28th inst.), in honor of the celebration of the Statue of Liberty Enlightening the World, to be dedicated on said day.

Adopted.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, November 3, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works*, *Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also Chief Engineer Church and Consulting Engineer Fteley, and Chief Engineer Birdsall of the Department of Public Works.

The minutes of the meeting of October 27th were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos. 2108 to 2134 inclusive, amounting to $4,088.72, and on motion of Commissioner DOWD the same were approved, and ordered certified to the Comptroller for payment.

The Committee on Construction recommended the adoption of the following resolution:

*Resolved*, That the President, the Chairman of the Committee on Construction, and the Chief Engineer, or either of them, are hereby authorized to issue permits to visit and inspect the work on the new Aqueduct, or any part thereof, to persons requesting the same, whose applications are approved by them, or either of them.

On motion of Commissioner RIDGWAY, the same was adopted.

The Committee on Real Estate presented the following report:

"The Committee on Real Estate make the following report and recommendation concerning the additional lands to be obtained at the Pocantico Open Cut No. 8, and at the Ravensdale Road for Shaft No. 15½.

At the Pocantico Cut there are six additional parcels of land to be acquired. These lands belong to four different owners, all of whom have been conferred with, and it is apparent that no agreement with them, as to compensation, can be reached which this Committee could recommend, or the Board of Estimate and Apportionment would approve. There are also other obstacles in the shape of mortgages, tenancies, etc., which complicate matters and militate against an adjustment by agreement.

There is the same difficulty in coming to an agreement with the owners of the lands for Shaft No. 15½.

We therefore recommend that proceedings to condemn the property be immediately taken, and that the initiatory public hearing in the matter be given at as early day as possible.

From the conferences with the owners and their attor-

neys, this Committee has reason to believe that these new proceedings being once under way, all the parties will then consent to an immediate amendment of former proceedings, and thus shorten the time of obtaining possession of the lands by at least one month. We recommend the adoption of the following resolution:

*Resolved*, That public hearing be given to all persons interested in the additional lands to be acquired in fee at Shaft Site No. 8, and for the additional Shaft No. 15½, as the same are shown upon the plans now before this Commission; that said hearing be given at this office on Wednesday, November 10, 1886, at 2 o'clock P. M., and the Secretary is hereby directed to give notice thereof by publication in the *City Record*."

Adopted.

The Secretary submitted a communication with reference to the agreement to be executed by the Aqueduct Commissioners and the firm of Coldwell, Wilcox & Co., for the iron work, etc., for the Blow-offs and Waste Weirs at Pocantico, Saw Mill River and Tibbett's Brook, and in connection therewith presented the following resolution:

*Resolved*, That the President of this Commission be and he is hereby authorized to execute an agreement on behalf of the Aqueduct Commissioners with the firm of Coldwell, Wilcox & Co. for furnishing the iron work and the labor and material necessary for putting the same in place for the Blow-offs and Waste Weirs at Pocantico, Saw Mill River and Tibbett's Brook at the prices named in their bid, and heretofore accepted by this Commission.

Commissioner BARNES moved the adoption of the resolution.

Adopted.

Commissioner FISH offered the following resolution:

*Resolved*, That the authority given to the Chief Engineer and Secretary of this Commission on the 23d of June last to grant to the employees of their respective Departments half-holidays on Saturdays, be and the same is hereby rescinded.

Adopted.

Commissioner BARNES moved that the leave of absence granted to Thomas Franklin, Assistant Engineer, on the 19th of October, by the Chief Engineer, be approved of, and that such leave of absence be extended indefinitely.

Carried.

On motion of Commissioner FISH, the Committee on Construction was requested to report on or before the 1st of December next, in regard to the Quaker Bridge and Muscoot Dams.

Commissioner DOWD moved that the President of the Commission, the Chairman of the Committee on Construction and Commissioner Ridgway be appointed a Committee to confer with the Civil Service Supervisory and Examining Board with regard to the rules and regulations to be established for the examination of persons applying for positions under the Aqueduct Commission, and that they be authorized to invite such persons as they may desire to accompany them.

Commissioner BALDWIN moved as an amendment that the Committee consist of the President of the Commission and the Chairman of the Committee on Construction.

Carried.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

# MINUTES OF EXECUTIVE SESSION

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, November 10, 1886, at 2.30 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works, Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

The recommendation of the Committee on Construction in favor of the appointment of Frederick W. Frost as Assistant Engineer was referred to Commissioners Fish, Baldwin and Dowd, to examine into the matter and report in regard to the same at the next Stated Meeting.

The reports of the Committee on Construction, in regard to paying a portion of the bills for iron work and for cut stone, were referred to the Committee of Finance and Audit.

The Committee of Finance and Audit reported, in regard to the 1st charge made against Mr. Church by Mr. Craven, exonerating him from all blame, which was re-

ceived and approved and ordered to be placed on file, and the Committee discharged from all further consideration of the matter.

The report of the Committee on Construction with regard to light and ventilation in the Aqueduct tunnels, was taken up, and after discussion was laid on the table for future consideration.

The Executive Session was then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, November 10, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works*, *Commissisners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The meeting was opened for public hearing, pursuant to the following notice:

" AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, NO. 280 BROADWAY,
NEW YORK, November 4, 1886.

PUBLIC HEARING.

*To whom it may concern :*

Whereas, in the progress of the work upon the new Croton Aqueduct, it has become apparent to the Aqueduct Commissioners that the best interests of the City

require that for the proper construction, future protection and maintenance of the said Aqueduct, the City should acquire the fee simple in certain additional parcels of land upon the line of said Aqueduct, in the County of Westchester, hereinafter described and shown upon the plans now on exhibition at this office, to wit:

All those certain parcels of land adjoining the lands heretofore acquired by this City for the said new Aqueduct at Shaft Site No. 8, in the Town of Mount Pleasant, as the same are shown upon said plans and numbered respectively, 712a, b, c, d, e, f, g, h, i, j, k, 715½ and 718½.

Also, all those certain parcels of land upon the line of said Aqueduct, at the Ravensdale Road, in the Town of Greenburgh, as the same are shown upon said plans, and designated Shaft Site No. 15½, and numbered respectively Parcels 299, 299½, 299¾, 300a, 300¼ and 300½. Now, therefore, in accordance with the requirements of Chapter 490 of the Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that a full opportunity will be afforded them to be heard in relation to the plans now under consideration by the Aqueduct Commissioners for the acquirement of the fee simple of the aforesaid lands; public hearing to be at the above-named office of the Aqueduct Commissioners, on Wednesday, the 10th day of November, 1886, at 2 o'clock P. M., and upon such other days thereafter to which said hearing may be adjourned.

By order of the Aqueduct Commissioners.

JOHN C. SHEEHAN,
*Secretary.*"

On behalf of persons interested in the lands at Shaft Site No. 8, Mr. Henry C. Griffin appeared for the Com-

missioners of Highways of the Town of Mount Pleasant, and also for George Hart, owner of one of the parcels, who was also present, and Mr. Edward Wells on behalf of the holders of the second mortgage upon the lands of Hart; all asking for information, and expressing their readiness to enter into any required stipulation for shortening proceedings to acquire the fee in said lands and bring the matter promptly before the Commissioners of Appraisal.

Mr. E. T. Lovett, the attorney of S. N. Leggett, and of the tenants upon the lands of Hart, not being present, and having asked an adjournment for the purpose of enabling him to appear, the hearing upon that subject was then adjourned to Friday, 12 inst., at 2 o'clock P. M.

Mr. Thomas H. Wagstaff, Jr., and Mr. Campyon Cutter, executors of the estate of Samuel Moore, appeared on behalf of the holders of a mortgage upon the lands proposed to be taken for Shaft Site No. 15½ at the Ravensdale Road, and signifying their readiness to acquiesce in any required proceedings for bringing the matter promptly before the Commissioners of Appraisal.

No one else appearing, and there being no objection made with regard to acquiring the fee simple in the lands at that shaft site, the hearing upon that subject was then declared closed, and the Commissioners went into Executive Session; and upon resuming the open session, the regular order of business was taken up.

The minutes of the meeting of the 3d inst. were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos.

2135 to 2147 inclusive, amounting to $1,895.41; and on motion of Commissioner DOWD the same were approved, and ordered certified to the Comptroller for payment.

The Committee of Finance and Audit next reported that they had had under consideration the supplementary payroll of the Engineer Corps for the period ending October 31, 1886, containing the names of Albert H. Porter, Joseph C. Ryan, Roland G. Rood, John T. Havanagh and James McCarty, and that they have approved of the same, except the amount set opposite the name of Joseph C. Ryan, which they refer to the Board for their consideration and action.

The report of the Committee was approved; and that part of the report relating to Joseph C. Ryan was referred back to said Committee.

The Committee on Construction made report recommending that Daniel Murray be appointed an Inspector of Masonry, he having passed the required examinations for such position.

Report adopted.

The Committee on Construction next made report recommending that the resignation of Robert Montgomery as an Inspector of Masonry be accepted, to take effect as of the 4th inst.

Report adopted.

The Comptroller, under date of the 6th inst., gave notice of the issue of a warrant for a voucher not certified to by the Aqueduct Commissioners, in favor of George C.

Appell, Westchester Section, $811.70, which was ordered to be placed on file and entered upon the books of the Commission.

The Chairman of the Committee on Construction reported verbally that the Committee had examined into the charge made by the Comptroller that inferior sand had been used at Shaft 19½. They find that no inferior sand was used at said shaft, and that the objections of the Comptroller were not well founded.

Report approved.

Commissioner BARNES then moved that when this Commission adjourns, it adjourns to meet on Friday next, 12th inst., at 3 o'clock P. M.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF ADJOURNED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Friday, November 12, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works, Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, *and Chief Engineer* BIRDSALL of the Department of Public Works.

The meeting was opened for public hearing, pursuant to the following notice:

"AQUEDUCT COMMISSIONERS' OFFICE,
STEWART BUILDING, NO. 280 BROADWAY,
NEW YORK, November 4, 1886.

PUBLIC HEARING.

*To whom it may concern:*

Whereas, in the progress of the work upon the new Croton Aqueduct it has become apparent to the Aqueduct Commissioners that the best interests of the City requires

that for the proper construction, future protection and maintenance of the said Aqueduct, the City should acquire the fee simple in certain additional parcels of land upon the line of said Aqueduct, in the County of Westchester, hereinafter described and shown upon the plans now on exhibition at this office, to wit:

All those certain parcels of land adjoining the lands heretofore acquired by this City for the said new Aqueduct at Shaft Site No. 8, in the Town of Mount Pleasant, as the same are shown upon said plans, and numbered respectively 712a, b, c, d, e, f, g, h, i, j, k, 715½ and 718½.

Also, all those certain parcels of land upon the line of said Aqueduct, at the Ravensdale Road, in the Town of Greenburgh, as the same are shown upon said plans, and designated Shaft Site No. 15½, and numbered respectively, parcels 299, 299½, 299¾, 300a, 300¼ and 300½. Now, therefore, in accordance with the requirements of Chapter 490, of the Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that a full opportunity will be afforded them to be heard in relation to the plans now under consideration by the Aqueduct Commissioners for the acquirement of the fee simple of the aforesaid lands; public hearing to be at the above-named office of the Aqueduct Commissioners, on Wednesday, the 10th day of November, 1886, at 2 o'clock P. M., and upon such other days thereafter to which said hearing may be adjourned.

By order of the Aqueduct Commissioners.

JOHN C. SHEEHAN,
*Secretary.*"

Mr. Lovett appeared before the Commissioners in behalf of Mrs. Susan Leggett, and also for the tenants on the

Hart property, and waived all objections to the acquiring of said property.

Mr. Carpenter also appeared and waived all objections. Whereupon, on motion of Commissioner DOWD, the hearing was then closed.

The regular order of business was then taken up.

The minutes of the Stated Meeting of November 10th were read and approved.

The Committee of Finance and Audit reported their examination and audit of the monthly estimates of work done by the contractors for the month of October, as per vouchers Nos. 2148 to 2161 inclusive, amounting to $460,921.49.

The report of the Committee was adopted, and the vouchers ordered certified to the Comptroller for payment.

The Committee on Construction reported in favor of appropriating one hundred dollars ($100) for the purpose of purchasing twelve 14 feet disc-rods to meet the demands of the Division Engineers.

Adopted.

The Committee on Real Estate reported in favor of the adoption of the following preamble and resolution:

*Whereas*, In the progress of the work upon the new Croton Aqueduct it has become apparent that the best interest of the City requires that for the proper construction and maintenance of the said Aqueduct,

the City should acquire the fee simple in certain additional parcels of land upon the line of said Aqueduct, in the Town of Mount Pleasant and County of Westchester, at Shaft Site No. 8, as the same is shown upon the property maps adopted by us on the 27th day of August, 1884, and filed in the office of the Register of the County of Westchester, on the 28th day of August, 1884; and

*Whereas*, Public hearing has been given to all parties interested in the additional parcels of land so to be acquired in fee, public notice of said hearing having been given; now, therefore, be it

*Resolved*, That for the more efficient carrying out of the previsions of Chapter 490 of the Laws of 1883, of the State of New York, we, the Commissioners appointed to carry out the provisions of said chapter of said laws, do hereby approve and adopt the plan this day submitted to us by the Chief Engineer for amending the proceedings heretofore taken, and to acquire the fee simple of the parcels of land shown upon said plan and designated "Parcels Nos. 712A, B, C, D, E, F, G, H, I, J and K, and Nos. 715½, 716½ and 718½, and we hereby direct said plan to be filed as "Final Plan Sheet No. 9A."

And the Commissioner of Public Works is hereby requested to prepare and submit to the Aqueduct Commissioners, for their approval, the six similar property maps of the aforesaid additional parcels of land, as required by Section 4 of the aforesaid act.

Adopted.

Also in favor of the following preamble and resolution:

*Whereas*, In the progress of the work upon the new Croton Aqueduct it has become apparent that the best interest of the City requires that for the proper construction and maintenance of the said Aqueduct, the City should aquire the fee simple in lieu of the easement heretofore acquired upon certain parcels of land in the Town of Greenburgh, in the County of Westchester, to wit: Parcel No. 299 and a part of Parcel No. 300, as the same are shown upon the maps adopted by us on the 27th day of August, 1884, and filed in the office of the Register of Westchester County, on the 28th day of August, 1884, and that the City should also acquire the fee simple of certain additional parcels of land adjoining the above-named parcels; and

*Whereas*, Public notice has been given to all parties interested in the lands so to be acquired in fee, public notice of said hearing having been given; now, therefore, be it

*Resolved*, That for the more efficient carrying out of the provisions of Chapter 490 of the Laws of 1883, of the State of New York, we, the Commissioners appointed to carry out the provisions of said chapter of said laws, do hereby approve and adopt the plan this day submitted to us by the Chief Engineer for amending the proceedings heretofore taken, and to acquire the fee simple of the parcels of land shown upon said plan as "Parcels Nos. 299, 299½, 300A, 300¼ and 300½," and we hereby direct said plan to be filed as "Final Plan Sheet 3A."

And the Commissioner of Public Works is hereby requested to prepare and submit to the Aqueduct

Commissioners, for their approval, the six similar property maps of the aforesaid additional parcels of land, as required by Section 4 of the aforesaid act.

Adopted.

The Chief Engineer reported the completion of the sinking and timbering of Shaft No. 16½.

In connection therewith Commissioner RIDGWAY offered the following resolution, and moved its adoption:

*Whereas*, The Chief Engineer of this Commission has reported that the construction of Shaft No. 16½ has been completed by the contractors; therefore,

*Resolved*, That inasmuch as said Shaft No. 16½ has been completed by O'Brien & Clark, the contractors, that the special contract heretofore executed by the Aqueduct Commissioners and O'Brien & Clark for the doing of said work meets with the approval of this Commission, and the execution of the same by the sureties is hereby waived as being unnecessary under the circumstances.

Adopted.

Commissioner FISH offered the following for a repeal of Section 4 of Article 3 of the By-Laws, and gave notice that he would move the adoption of the same at the next Stated Meeting.

*Resolved*, That Section 4 of Article 3 be and the same is hereby repealed.

Laid over.

Commissioner FISH then offered the following proposed amendment to the By-Laws:

Section 4 of Article 3 is hereby amended so as to read as follows:

SECTION 4. An Executive Session or Council of the Commissioners shall be held at any time on the written request of three or more of the Commissioners, provided said request shall state the object for which the Executive Session is called, and said request shall be read at a Stated or Special Meeting of the Commission held in open session prior to the holding of the Executive Session; no other business shall be transacted in Executive Session than that stated in the written request for the Executive Session, and no determination or conclusion of the Commissioners at such Council shall be valid or of binding effect until approved or adopted by a majority vote of the Commissioners in open session.

Laid over under the rules.

The minutes of the Executive Session of the Commissioners held on the 10th inst. were then read by the Secretary, and on motion of Commissioner BARNES the action of the Commissioners had in said Executive Session was approved.

On motion of Commissioner BARNES it was resolved that when the Commission adjourns, it adjourns to meet on Tuesday next, 16th inst., at 3 o'clock P. M.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF ADJOURNED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Tuesday, November 16, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Adjourned Meeting of the 12th inst. were read and approved.

The Committee of Finance and Audit reported that the special matters heretofore referred to them, with reference to allowing Coldwell, Wilcox & Co., contractors, fifty per cent. on their contract for iron work; and also with reference to allowing Smith & Brown, contractors, a part payment for stone delivered for the masonry for the new Gate House on Section 1, were still under consideration, and they reported progress thereon.

Approved.

The Chief Engineer reported that he had made an investigation of the accidents and their cause at Shaft 16 on the 19th of October, and of Shaft 27 on the 27th of October, and that he was unable to learn that there was any special blame to be charged against any person in the employ of the Commission, which was read and ordered placed on file.

The Commissioner of Public Works submitted the six similar property maps of the lands required for Shaft Site No. 15½, in the Town of Greenburgh, Westchester County; also the six similar property maps of the additional land required at Shaft Site No. 8, in the Town of Mount Pleasant, Westchester County, and in connection therewith, on motion of Commissioner BALDWIN, the following resolutions were presented:

*Resolved*, That the six similar property maps of additional lands required upon the line of the new Aqueduct, in the Town of Mount Pleasant, and County of Westchester, at Shaft Site No. 8, submitted to the Aqueduct Commissioners by the Commissioner of Public Works under date of November 16, 1886, be and the same are hereby adopted by the Aqueduct Commissioners; and it is hereby ordered that said maps be transmitted to the Counsel to the Corporation, with a certificate of said approval signed by the Aqueduct Commissioners adopting said maps; the said maps to be filed and furnished to the Commissioners of Appraisal, as required by law; and the said Counsel to the Corporation is hereby requested to take, at as early day as practicable, the required proceedings for acquiring the lands described upon said maps.

Adopted.

*Resolved*, That the six similar maps of the property required for the proper construction and maintenance of the new Aqueduct on the line of said Aqueduct in the Town of Greenburgh, County of Westchester, at Shaft Site No. 15½, and known as "Parcels Nos. 299, 299½, 300A, 300¼ and 300½," as the same are shown upon said maps, submitted to the Aqueduct Commissioners by the Commissioner of Public Works under date of November 16, 1886, be and the same are hereby adopted by the Aqueduct Commissioners; and it is hereby ordered that said maps be transmitted to the Counsel to the Corporation, with a certificate of such approval signed by the Aqueduct Commissioners adopting said maps, the said maps to be filed and furnished to the Commissioners of Appraisal, as required by law, and the said Counsel to the Corporation is hereby requested to take, at as early day as practicable, the required proceedings for acquiring the lands described upon said maps.

Adopted.

The Comptroller, under date of 13th inst., gave notice of the issue of warrants for the payment of vouchers not certified to by the Aqueduct Commissioners in favor of

| | |
|---|---|
| Spencer G. McNary, Westchester County Section | $251 68 |
| The Mutual Life Insurance Company, New York County Section | 250 00 |

—which was ordered entered upon the books of the Commission and filed.

The Secretary submitted a notice of lien filed by John Kelly against O'Brien & Clark, contractors, on Section 9,

for $1,020, which was referred to the Committee of Finance and Audit.

Commissioner BALDWIN moved that when the Commissioners adjourn, they adjourn to meet on Wednesday, 24th inst., unless in the meantime they are called together as provided for in the By-Laws and Rules of Order of the Commission.

Carried.

Commissioner RIDGWAY then offered the following resolution:

*Whereas*, Notwithstanding the repeated promises of contractors Brown, Howard & Co. and John Brunton & Co. to comply with the order given under direction of the Commission by its Chief Engineer, to light the tunnels under their contracts with electricity, and improve their method of ventilation; and

*Whereas*, They have not complied with said order, but, on the contrary, in places where masonry is being put in it frequently appears that they allow the air boxes to be displaced so that there is no provision for the introduction of pure air into the headings; and

*Whereas*, They still continue the use of gasoline lamps, vitiating the air to such an extent as to make it detrimental to health and life; therefore, be it

*Resolved*, That this Commission take immediate steps to enforce the order issued by the Chief Engineer to the contractors under date of June 22d and September 9th,

directing them to place electric lights and power blowers upon their work.

Unanimously adopted.

Commissioner BALDWIN then moved that the Secretary be directed to transmit a copy of the resolutions last adopted to the Counsel to the Corporation, with a request that he give his opinion at as early date as possible, as to the best means to be adopted by the Commissioners to compel the contractors to use the necessary and proper lighting and ventilating apparatuses.

Carried.

Commissioner FISH then offered the following resolution:

*Resolved*, That the Committee on Construction be requested to report at the next meeting of the Commission the reasons why the work on Section 13 has been so delayed, and what steps can be taken to expedite the work on that section.

Adopted.

Commissioner BARNES then offered the following resolution:

*Resolved*, That the Commission learns with regret of the death of Assistant Engineer Thomas Franklin, who was employed in the office of the Chief Engineer of this Commission since the commencement of the work on the new Aqueduct, and we desire to express our appreciation of the faithful and skillful services uni-

formly rendered by him on that part of the work committed to his charge. That this tribute to his memory be spread upon the minutes of the Commission, and an engrossed copy thereof transmitted to his bereaved family, assuring them of our sincere sorrow and sympathy.

Adopted.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, November 24, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works*, and *Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Adjourned Meeting of the 16th inst. were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers 2163 to 2173, inclusive; also vouchers 2174 to 2194, inclusive; which were, on motion of Commissioner DOWD, approved and ordered certified to the Comptroller for payment.

The Committee also reported in favor of making a payment of 50 per cent. to Messrs. Coldwell, Wilcox & Co.,

contractors, for the iron work for waste weirs and gate houses at Pocantico, Saw Mill River and Tibbett's Brook.

Commissioner DOWD moved that the following report of the Chief Engineer in connection with the said matter be spread in full upon the minutes, and that the report of the Committee be adopted:

"NEW YORK, November 24, 1886.

*To the Hon. the Committee on Finance and Audit of the Aqueduct Commission:*

Gentlemen,—I have to report (in response to your inquiry) that the iron work for the waste weir and gate houses at Pocantico, Saw Mill River and Tibbett's Brook can be delivered and properly stored until the masonry is made ready to put said iron work in place, without injury to the same, or loss to the Commission.

Very respectfully,

(Signed) B. S. CHURCH,

*Chief Engineer.*"

Unanimously adopted.

The Committee also reported that they had examined into the matter of allowing a partial payment to Smith & Brown, contractors, for stone delivered for the gate house at Croton Dam, and recommended that no such payment be allowed.

Adopted.

The Committee also reported that they have had under consideration the matter of paying Joseph C. Ryan, Chainman, for the time that he was absent from August 22 to November 1, 1886, on account of sickness contracted upon

and incident to his work in the Engineer Corps of the Commission, and recommended that he be allowed half pay during the time of his absence.

Adopted.

On motion of Commissioner BARNES, the Secretary was then directed to read, out of its regular order, an opinion of the Counsel to the Corporation, dated 23d inst., having reference to the power of the Commissioners to compel the contractors to use such necessary and proper lighting and ventilating apparatuses in the tunnel and shafts of the Aqueduct as might be required by the Aqueduct Commissioners.

The opinion was read, and also a letter from Messrs. John Brunton & Co., contractors, upon the subject, which were ordered placed on file.

Commissioner BARNES, from the Committee on Construction, then submitted the following report, and moved its adoption:

"The Committee on Construction respectfully report that they have had under consideration the subject of light and ventilation in the Aqueduct tunnels, and now recommend to the Commissioners the adoption of the following resolution:

*Resolved,* That authority be given to the Chief Engineer of this Commission to employ James T. Gardner, Engineer to the State Board of Health, and William McQuale, mining expert, or such others as are approved by the Committee on Construction, to examine the lighting and ventilating appliances in all the un-

derground works of the Aqueduct and report at the earliest possible moment upon the same, said report to indicate what the present condition of the appliances is and what is required to make the ventilation and lighting efficient and complete."

Commissioner RIDGWAY offered the following resolution as a substitute for the report of the Committee, and moved its adoption:

*Whereas,* The question of light and ventilation having been fully discussed by this Commission, and conclusive evidence being obtained that the use of gasoline as a means of lighting the tunnels is a serious detriment to health; and

*Whereas,* The records of this Commission show that explosions of gasoline have occurred upon the work, which resulted in the loss of life; therefore

*Resolved,* That the Chief Engineer be and he is hereby directed to forthwith issue orders to his two Principal Assistants, and to each Division Engineer, strictly prohibiting the use of gasoline upon any part of the work from and after the 30th inst., and that he at the same time do notify each of the contractors in writing of the issuance of this order.

Which was lost by the following vote:

*Affirmative—Commissioners Ridgway and Fish—2.*
*Negative—Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioners Baldwin and Barnes—5.*

Commissioner FISH then moved that the report of the Committee be amended so as to limit the time of the Special Commission in which to make its report to two weeks from date, and at an expense not to exceed $500, which was lost by the following vote:

*Affirmative—Commissioner Fish*—1.
*Negative—Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioners Baldwin, Barnes and Ridgway*—6.

The report of the Committee was then adopted by the following vote:

*Affirmative—Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioners Baldwin and Barnes*—5.
*Negative—Commissioners Ridgway and Fish*—2.

Commissioner RIDGWAY then offered the following resolution, out of its regular order, and moved its adoption:

*Resolved*, That the Chief Engineer be and he is hereby directed to report to this Commission, on December 1st, giving an account of the character of light and ventilation upon each section of the work as it has been each day since the 16th inst., and should such light and ventilation not be in conformity with the instructions already issued to the contractors by that date (December 1st), he is hereby instructed to certify the same to this Commission, and they will, in conformity with the opinion of the Counsel to the Corporation upon such certification, order the work stopped at such points where the order as to light and ven-

tilation has not been complied with, and assume the responsibility of prosecuting the work in conformity with the contract.

Commissioner BARNES moved that all after the word "Commission" in the eighth line of said resolution be stricken out.

Commissioner NEWTON offered the following resolution as a further amendment to said resolution, and moved its adoption:

*Resolved*, That the Chief Engineer be and he is hereby directed to report to this Commission on the same date that the Special Committee, consisting of James T. Gardner and William McQuale make their report, giving an account of the character of light and ventilation upon each section of the work as it has been each day since the 16th inst.; and should such light and ventilation not be in conformity with the instruction already issued to the contractors by that date, he is hereby instructed to certify the same to this Commission.

Adopted.

The Committee on Construction then presented the following report:

"At an adjourned meeting of the Commissioners held on the 16th inst., the following resolution was adopted:

*Resolved*, That the Committee on Construction be requested to report at the next meeting of the Commission the reasons why the work on Section 13 has been so de-

layed, and what steps can be taken to expedite the work on that section.

This Committee respectfully report that the work was not delayed, but that the gang employed on the work was engaged in lining the shaft and putting in the cages necessary for the hoisting apparatus, and consequently no excavation was practicable underground."

Adopted.

Also that the question of sinking an additional shaft between existing Shafts Nos. 13 and 14, at or near Station 779, to be known as "Shaft No. 13 A," having been considered by this Committee to be necessary for the proper prosecution of the work, recommend its construction, and the adoption of the following resolution:

*Resolved*, That on the reception of the recommendation of the Chief Engineer and the Committee on Construction, the Aqueduct Commissioners deem it advisable and necessary that an additional shaft be located and constructed on the line of the new Aqueduct, between Shafts Nos. 13 and 14, at or near Station 779, that shall be known as "Shaft No. 13 A," and that sufficient land be obtained or purchased for the same, and the Aqueduct Commissioners hereby authorize and direct the construction of said shaft, and the obtaining or purchasing the necessary land for said shaft, and the Committee on Construction and the Chief Engineer are hereby directed to have the said shaft located, and the necessary land for said shaft [illegible]ed and mapped immediately, and reported to [illegible]missioners for their action in the premises.

Also that the said Committee shall prepare and submit to the Commissioners the form of a contract or agreement for the construction of said shaft.

The Committee also recommend that the construction of Shaft No. 13½, heretofore authorized, shall be suspended until the Committee on Construction shall order the same resumed.

Commissioner DOWD moved that the report be so amended that the construction of Shaft No. 13½ shall be suspended until the Commission shall order the same resumed.

The report of the Committee, as amended, was then unanimously adopted.

The Chief Engineer made report recommending the appointment of a number of laborers, and also the appointment of William Cushing as an Inspector of Masonry.

Commissioner RIDGWAY moved that the recommendation of the Chief Engineer be complied with.

Commissioner DOWD moved that that part of the communication which referred to the appointment of laborers be referred to the Committee on Construction, and that William Cushing be appointed an Inspector of Masonry.

Carried.

The Comptroller, under date of the 20th inst., gave notice of the issue of warrants for the payment of vouchers

not certified to by the Aqueduct Commissioners, as follows:

| | |
|---|---|
| Spencer G. McNary, Westchester County Section | $201 12 |
| Cuyler Freeman, New York County Section | 200 00 |

—which was ordered entered upon the books of the Commission and filed.

The Secretary presented a communication from Messrs. John Brunton & Co., contractors, stating that they had contracted for a Brush electric light plant along the line of their work on the Aqueduct, and that the machinery and lamps in connection therewith would be ready for use in two weeks; which was ordered placed on file.

The Secretary presented a communication from James H. Caulfield with reference to supplying the Commission with copies of legislative bills during the next session of the Legislature.

Commissioner BARNES moved that the Secretary be authorized to make such an arrangement with Mr. Caulfield at an expense not to exceed $50.

Carried.

By Commissioner RIDGWAY:

*Whereas*, The question of light and ventilation having been fully discussed by this Commission, and conclusive evidence having been obtained that the use of gasoline as a means of lighting the tunnels is a serious detriment to health; and

*Whereas*, The records of this Commission show that explosions of gasoline have occurred upon the work, which resulted in the loss of life; therefore

*Resolved*, That the Chief Engineer be and he is hereby directed to forthwith issue orders to his two Principal Assistants, and to each Division Engineer, strictly prohibiting the use of gasoline upon any part of the work from and after the 30th inst., and that he at the same time notify each of the contractors in writing of the issuance of this order.

Commissioner NEWTON moved that the resolution be amended so as to direct the Chief Engineer to comply with the directions of said resolution, providing the Counsel to the Corporation shall advise him that it is within the power of the Commissioners to make such an order.

The resolution, as amended, was then adopted.

By Commissioner FISH:

*Whereas*, The taking of testimony by the Special Committee appointed to inquire into the services and character of Mr. McCulloh has been closed; and

*Whereas*, It is important that each Commissioner should be familiar with such testimony previous to voting upon the question; therefore

*Resolved*, That the Secretary be directed to furnish a copy of such testimony to each member of the Board on or before Wednesday next.

Adopted.

By Commissioner FISH:

*Resolved*, That the Chief Engineer be requested to transmit to the Secretary of the Committee on Construction copies of all weekly reports made by the Principal Assistant Engineers, and also of any reports made by such Principal Assistant Engineers of an important character, and that said Secretary be requested to keep such papers for the information of the Commissioners.

Adopted.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, December 1, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *the Commissioner of Public Works, Commissioners* BALDWIN, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of November 24th were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos. 2200 to 2211, inclusive; which were, on motion of Commissioner DOWD, approved and ordered certified to the Comptroller for payment.

The Committee on Construction submitted the following report:

"The Committee on Construction recommend for appointment as Chainmen and Laborers the following named persons:

For Chainmen:

| | |
|---|---|
| Richard A. Reinisch, | George J. Deitz, |
| Edward A. Byrne, | H. Brown Alderson, |
| W. Mitchell, | John R. Yale, |
| John E. Hayes, | William Horton and |

Henry Cantor.

For Laborers:

| | |
|---|---|
| William Whalen, | Michael Corkey, |
| Peter Nevin, | James Hayes and |
| William McCormick, | John T. Ward." |

Commissioner DOWD moved that the report of the Committeee be adopted, and that the Chief Engineer be requested to inform the Board at its next meeting to what points the persons so appointed are assigned.

Carried.

Commissioner BALDWIN then moved that the Chief Engineer be directed to hereafter make application to the Commissioners in open session for any employees that he may need in the Engineer Corps, in order that it may be regularly referred to the proper committee.

Carried.

The Chief Engineer submitted a communication having reference to the charges made by H. S. Craven, late Construction Engineer, requesting that the expenses incurred

by him for counsel fees, amounting to $2,372.19, be paid by the Commission.

Referred to Committee of Finance and Audit.

The Chief Engineer next submitted a communication stating that he had received an urgent request from contractors Brown, Howard & Co. and John Brunton & Co. for an extension of time beyond November 30th for the discontinuance of the use of gasoline torches on their work; and recommended that an extension of ten days be allowed them.

Commissioner BALDWIN moved that the recommendation of the Chief Engineer be approved, and that the extension of ten days be allowed.

Commissioner NEWTON moved as an amendment that the time be fixed at five days, and the same was adopted by the following vote:

*Affirmative—Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioner Baldwin*—4.

*Negative—Commissioners Ridgway and Fish*—2.

The Chief Engineer submitted a communication with regard to the cement used in the foundation concrete in the open cut at Shaft No. 18, and recommended that the contractors be allowed the sum of $185.25 for removing and replacing said concrete.

Referred to Committee of Finance and Audit.

The Chief Engineer next submitted a communication

asking for an appropriation of $498 to cover the cost of land maps for securing the right of way, in fee, between Croton Dam and the Harlem River.

Referred to Committee of Finance and Audit.

The Chief Engineer then reported that Shaft No. 11 C had been completed by contractors Brown, Howard & Co. in accordance with the agreement entered into with them, and recommended that it be accepted by the Commissioners.

In connection therewith Commissioner FISH offered the following resolution, and moved its adoption:

*Resolved*, That inasmuch as Shaft No. 11 C has been completed by Brown, Howard & Co., the contractors, that the special contract executed by the Aqueduct Commissioners and said Brown, Howard & Co. for the doing of said work meets with the approval of this Commission, and the execution of the same by the sureties is hereby waived as being unnecessary under the circumstances.

Adopted.

The Chief Engineer next submitted a communication recommending that A. A. Aguirre, Draughtsman, be allowed a leave of absence for three months, without pay, and that he be allowed the time deducted from his salary for the months of January, March, May and October, amounting to $242.94, as he was compelled to desist from work during said months by reason of illness, contracted in the draughting room of the Commission.

Referred to Committee of Finance and Audit.

The COMMISSIONER OF PUBLIC WORKS submitted a report having reference to the necessity of constructing certain sewers simultaneously with the work of laying the eight lines of four-foot pipes for the new Aqueduct Gate House at One Hundred and Thirty-fifth street through Convent avenue and other streets to the Central Park Reservoir, and stating that it would be proper and necessary that Chief Engineers Church and Birdsall and Mr. Loomis, Engineer in charge of Sewers, confer with each other on the subject, and together determine and devise the extent and plans of sewerage necessary to be included in the work of laying pipe lines, and further stating that the plans would be submitted for the proposed sewers as soon as they are completed.

Commissioner DOWD moved that the subject matter of the report be referred to the three engineers named therein, and that they be requested to report their views to this Commission.

Carried.

The Comptroller, under date of November 27th, gave notice of the issue of a warrant for a voucher not certified to by the Aqueduct Commissioners, in favor of Stephen McCarthy, Manhattan Island Section, for $1,000; which was ordered entered upon the books of the Commission and filed.

The Chief Engineer then made a verbal statement to the effect that the inspectors along the line of the Aqueduct were compelled to put in a good deal of overtime, owing to the insufficient number of inspectors, and recommended that they be allowed pay for such extra work.

Commissioner FISH moved that the subject matter of the report be referred to the Committee of Finance and Audit, to consider and report upon the same.

Carried.

By Commissioner FISH:

*Resolved*, That the Chief Engineer be instructed to prepare and submit, on or before January 1, 1887, estimates and details for the difference of cost of changing the plan of the Aqueduct through Gould's Swamp, as compared with the original plans, and of the adit and pumping apparatus to the Hudson River from Gould's Swamp.

Adopted.

By Commissioner FISH:

*Resolved*, That the Chief Engineer be requested to inquire and report to this Commission at the next meeting the names of any of the Tunnel Inspectors or other inspectors who are employed on that portion of the work where they inspect the work of contractors in whose employ they formerly were.

Adopted.

Commissioner FISH then offered the following resolution:

*Whereas*, One or more of the contractors have made a request of this Commission that solid masonry be put in over the arch of the tunnel along the line of their work, instead of the dry packing, as called for by the contract;

*Resolved*, That the Chief Engineer be requested to report to this Commission the increased cost to the City of such solid masonry for the entire line of the Aqueduct, and whether, in his opinion, it is necessary to insert solid masonry over the arch of tunnel along the entire line.

A communication from Mr. C. R. Cummings, of the firm of Brown, Howard & Co., requesting that solid masonry be put in over the arch of the tunnel, was read; whereupon Commissioner BALDWIN offered the following resolution as a substitute for the foregoing resolution:

*Resolved*, That the communication read to the Commissioners from Mr. Cummings be referred to the Committee on Construction, to report to the Commissioners when information is obtained from the Chief Engineer.

The resolution was adopted, Commissioner Fish voting in the negative.

Commissioner RIDGWAY then moved that should a report be received from the Civil Service Commission before the next Stated Meeting, certifying a list of persons eligible for appointment as Inspectors of Masonry, that the President be requested to call a special meeting of the Commissioners for the purpose of taking action on any such report.

Carried.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Saturday, December 4, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, BALDWIN, BARNES, RIDGWAY and FISH.
Also *Chief Engineer* CHURCH.

The minutes of the meeting of the 1st inst. were read and approved.

The Committee on Construction made report recommending the appointment of the following persons as Inspectors of Masonry and Brick Work, their wages to begin when they are assigned to duty by the Chief Engineer:

| | |
|---|---|
| George L. Tillotson, | Lincoln Frank, |
| John F. Tierney, | William Fitzgerald, |
| Francis O'Hare, | John P. Schermerhorn, |
| Joseph W. Hale, | John Toomey, |
| Charles E. Richards, | John E. Fitzgerald, |

| | |
|---|---|
| William J. Daly, | Benjamin H. Brevoort, |
| John Boyle, | James O'Neill, |
| Robert J. Fletcher, | Frank S. Whittier, |
| Thomas Graham, | Joseph R. Swain, |
| William Klien, | John Donnelly. |

Report of the Committee adopted.

The Chief Engineer reported the resignations of Chainmen Joseph T. Underhill, Charles B. Nooney and Joseph C. Ryan, which were accepted.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, December 8, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works*, *Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Special Meeting of the 4th inst. were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos. 2213 to 2230, inclusive, and on motion of Commissioner DOWD the same were approved and ordered certified to the Comptroller for payment.

Also that the Committee of Finance and Audit, to whom was referred the request of the Chief Engineer for an appropriation of $498 to cover the cost of land maps for

securing the right of way, in fee, between Croton Dam and the Harlem River, recommend the adoption of the following resolution:

*Resolved,* That the sum of $498 be appropriated to cover the cost of mounting, binding, etc., the land maps for securing the right of way, in fee, between Croton Dam and the Harlem River.

Adopted.

Also that the Committee of Finance and Audit, to whom was referred the bill of Rider & Dougherty of $185.25 for labor and cost of taking up and replacing concrete in experimental section near Yonkers avenue, by order of the Chief Engineer, to test the quality of cement, etc., and the report of the Chief Engineer in relation to the same, recommend that the bill be allowed.

Adopted.

Also that the Committee of Finance and Audit, after consideration of the matter of the pay of A. A. Aguirre, Draughtsman, absent on account of sickness during January, March, May and October, 1886, (60¼ days, amounting to $242.94,) and of his request for leave of absence, without pay, recommend that he be allowed pay for the time of such absence to October 31, 1886, and that he be granted four months' leave of absence, without pay, from November 1, 1886.

Adopted.

Also that the Committee of Finance and Audit, to whom was referred the verbal statement and recommendation of the Chief Engineer that the inspectors who have worked

overtime be allowed pay for such extra work, have had the same under consideration, and recommend that, in view of the change heretofore made in the pay of inspectors from a per diem to a monthly rate, and of the increased pay now received by them, no allowance be made for such extra work.

Adopted.

The Committee on Construction made report as follows:

"That the subject of the construction of the Quaker Bridge Dam was taken up by the Committee, and they were unable to come to a unanimous conclusion on the subject, and therefore recommend the passage of the following resolution:

*Resolved*, That this Committee recommends to the Commissioners that they select a board of experts, consisting of not more than three nor less than two members; said experts to advise the Commissioners as to the feasibility and necessity of constructing said dam, and upon the plans proposed therefor, and report at the earliest possible moment to the Commissioners their views thereon."

Adopted.

The Committee on Real Estate reported the results of negotiations carried on under their direction between the owners of the lands required for the additional Shaft Site No. 15½ upon the Ravensdale Road, in the Town of Greenburg, Westchester County, stating that a stipulation has been made by the Counsel to the Corporation and by the attorneys of the owners, under and by which stipulation

the Aqueduct Commissioners are authorized to immediately enter upon said lands, without awaiting the appointment and oath of office of the Commissioners of Appraisal; such permission, however, being conditioned upon the undertaking of the Aqueduct Commissioners that before any work is done for the sinking of the shaft, or in preparing therefor, the lands to be taken shall be securely fenced, so as to protect the adjoining lands of the owners. And it is further stipulated that the award that shall be made to them for the fee of said lands shall be increased by the sum of the interest upon said award from the date when the Aqueduct Commissioners enter upon the land until the date of the filing of the oath of the Commissioners of Appraisal.

Action of the Committee approved.

The Special Committee appointed to examine into the character and value of the services rendered by Mr. James W. McCulloh reported that they had given the matter considerable time and attention, and found that, while Secretary, Mr. McCulloh performed duties outside of those belonging to his office, in connection with acquiring real estate for Aqueduct purposes, and that, inasmuch as there was a large amount of unfinished business relating to said real estate in his hands at the time he ceased to be the Secretary of the Commission, his continuance in the service of the Commission was deemed advisable and necessary, because of his peculiar fitness for the duties in which he is engaged concerning the real estate heretofore and hereafter to be taken for Aqueduct purposes, and recommend the adoption of the following resolution:

*Resolved*, That James W. McCulloh be and he is hereby continued in the service of the Aqueduct Commis-

sioners as "Special Assistant to the Chief Engineer," as provided in the resolution adopted July 28, 1886, for and during the will and pleasure of the Aqueduct Commissioners, with compensation at the rate of $5,000 per annum, to date from and after December 31, 1886, and that he be assigned to the service, control and direction of the Committee on Real Estate, with regard to all matters pertaining to real estate under the charge of said Committee, as provided in the By-Laws; and shall also perform such other service and duty as may be assigned to him by the Aqueduct Commissioners.

Commissioner FISH moved, as an amendment, that the salary be fixed at $3,000 instead of $5,000, which was lost by the following vote:

*Affirmative—Commissioners Barnes and Fish*—2.
*Negative—Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioner Baldwin*—4.

Commissioner RIDGWAY stated that he was opposed to the employment of Mr. McCulloh, as it was unnecessary and a useless expense; and furthermore, that he was not a resident of the State of New York, and therefore not a proper person to hold office in this State; and for that reason he declined to vote.

Commissioner FISH then moved, as an amendment, that the salary be fixed at $4,000 instead of $5,000, which was lost by the following vote:

*Affirmative—Commissioners Barnes and Fish*—2.
*Negative—Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioner Baldwin*—4.

Commissioner Ridgway declined to vote for the above-stated reason.

The original resolution was then adopted by the following vote:

*Affirmative—Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioner Baldwin*—4.

*Negative—Commissioners Barnes, Ridgway and Fish*—3.

Commissioner Ridgway stated that he voted in the negative because he was utterly opposed to any such employment.

The Comptroller, under date of 4th inst., gave notice of the issue of a warrant for the payment of a voucher not certified to by the Aqueduct Commissioners, in favor of Henry Hilton, Westchester County Section, for $300; which was ordered entered upon the books of the Commission and filed.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, on Wednesday, December 15, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *the Commissioner of Public Works* and *Commissioners* BALDWIN, BARNES and RIDGWAY.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of the 8th inst. were read, amended and approved.

The Committee of Finance and Audit reported their examination and audit of the monthly estimates of work done by the contractors for the month of November, as per vouchers Nos. 2231 to 2244, inclusive, amounting to $404,335.04; also of bills contained in vouchers Nos. 2245 to 2254, inclusive, and voucher No. 2239, being estimate

for work done on Section No. 9 by O'Brien & Clark, amounting to $50,457.55.

On motion of Commissioner DOWD, the report of the Committee was adopted, and the vouchers ordered certified to the Comptroller for payment.

The Committee on Construction reported that at a meeting of the Committee held on the 10th inst. the Chief Engineer reported that Mr. Rossiter W. Raymond would act as an expert to inspect and report the condition and requirements for light and ventilation in the Aqueduct tunnels, and that he had entered upon such inspection on the 14th inst., with the understanding that the examination would not take more than one week, and that his compensation would be $500 and expenses, and recommended the adoption of the following resolution:

*Resolved*, That the appointment of Rossiter W. Raymond by the Chief Engineer, as recommended to this Committee, be approved, in accordance with the resolution of the Commissioners adopted at the Stated Meeting of November 24th, and reported to the Commissioners, and that the rate of compensation mentioned ($500 and expenses) be approved.

Adopted.

The Committee also reported in favor of the adoption of the following resolution:

*Resolved*, That the Committee on Construction recommend to the Aqueduct Commissioners the appointment of a committee, consisting of three members of the Commission, to confer with the Civil Service

MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Saturday, December 4, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, BALDWIN, BARNES, RIDGWAY and FISH.
Also *Chief Engineer* CHURCH.

The minutes of the meeting of the 1st inst. were read and approved.

The Committee on Construction made report recommending the appointment of the following persons as Inspectors of Masonry and Brick Work, their wages to begin when they are assigned to duty by the Chief Engineer:

| | |
|---|---|
| George L. Tillotson, | Lincoln Frank, |
| John F. Tierney, | William Fitzgerald, |
| Francis O'Hare, | John P. Schermerhorn, |
| Joseph W. Hale, | John Toomey, |
| Charles E. Richards, | John E. Fitzgerald, |

| | |
|---|---|
| William J. Daly. | Benjamin H. Brevoort. |
| John Boyle. | James O'Neill. |
| Robert J. Fletcher. | Frank S. Whittier. |
| Thomas Graham. | Joseph R. Swain. |
| William Kier. | John Donnelly. |

Report of the Committee adopted.

The Chief Engineer reported the resignations of Chainmen Joseph T. Underhill, Charles B. Nooney and Joseph C. Ryan, which were accepted.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, Wednesday, December 8, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works*, *Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Special Meeting of the 4th inst. were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos. 2213 to 2230, inclusive, and on motion of Commissioner DOWD the same were approved and ordered certified to the Comptroller for payment.

Also that the Committee of Finance and Audit, to whom was referred the request of the Chief Engineer for an appropriation of $498 to cover the cost of land maps for

securing the right of way, in fee, between Croton Dam and the Harlem River, recommend the adoption of the following resolution:

*Resolved,* That the sum of $498 be appropriated to cover the cost of mounting, binding, etc., the land maps for securing the right of way, in fee, between Croton Dam and the Harlem River.

Adopted.

Also that the Committee of Finance and Audit, to whom was referred the bill of Rider & Dougherty of $185.25 for labor and cost of taking up and replacing concrete in experimental section near Yonkers avenue, by order of the Chief Engineer, to test the quality of cement, etc., and the report of the Chief Engineer in relation to the same, recommend that the bill be allowed.

Adopted.

Also that the Committee of Finance and Audit, after consideration of the matter of the pay of A. A. Aguirre, Draughtsman, absent on account of sickness during January, March, May and October, 1886, (60¼ days, amounting to $242.94,) and of his request for leave of absence, without pay, recommend that he be allowed pay for the time of such absence to October 31, 1886, and that he be granted four months' leave of absence, without pay, from November 1, 1886.

Adopted.

Also that the Committee of Finance and Audit, to whom was referred the verbal statement and recommendation of the Chief Engineer that the inspectors who have worked

On motion of Commissioner BALDWIN, the communication was referred to the Committee on Construction.

A communication was received from the Chief Engineer, stating that, through the contingencies of the work, some of his assistants had been deprived of their vacations when their turns came, and recommending that in such cases they be allowed that much extra leave during the following year.

On motion of Commissioner BARNES, the same was referred to the Committee on Construction.

A communication, under date of 13th inst., was received from W. H. Webb, Esq., of No. 504 Fifth avenue, calling attention to the inconvenience and loss he had been put to by reason of natural springs on his property having run dry, owing to the blasting in the new Aqueduct.

On motion of Commissioner BARNES, the same was referred to the Committee on Real Estate.

The PRESIDENT then presented to the Board a copy of a report of the Boston Water Works, which report gave a full history, with maps and diagrams, of said water works. He stated that it was desirable that a report of about the same size and character should be made, showing all the work done on the new Croton Aqueduct up to the 31st day of December, 1886.

Commissioner BARNES then moved that the President and the Chief Engineer be authorized to prepare and have published a report to be substantially in form and dimensions with a copy of the report of the Boston Water Works now before the Commissioners, which report should

be a complete history of the character, progress and expense of the new Croton Aqueduct up to and including the 31st day December, 1886, accompanied by a set of engraved or lithographic plans of the work and the various structures, as they may deem necessary to fully describe and illustrate the same.

Adopted.

Commissioner BALDWIN presented for the consideration of the Commissioners the names of

| | |
|---|---|
| J. B. Francis, | R. K. Martin, and |
| George S. Greene, | J. J. R. Croes, |

from which a selection might be made of experts to advise the Commissioners as to the feasibility and necessity of constructing the Quaker Bridge Dam; which were placed on file.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

# MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, on Wednesday, December 22, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *The Commissioner of Public Works* and *Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of the 15th inst. were read and approved.

The Committee of Finance and Audit reported their examination and audit of bills contained in vouchers Nos. 2256 to 2270, inclusive, and on motion of Commissioner DOWD the same were approved and ordered certified to the Comptroller for payment.

The Special Committee appointed on December 15th to confer with the Civil Service Supervisory Board made the following report out of its regular order:

"The Committee appointed on December 15th to confer with the Civil Service Supervisory Board in regard to the

proposed Civil Service examinations for Chainmen, desire to report:

That they and Chief Engineer Church held a meeting at the Mayor's office on December 18th with the Civil Service Supervisory Board, and after a friendly and free interchange of views, it was the opinion of all present that the position of Chainmen under the Aqueduct Commissioners was not of a high order, and the duties quite similar to those performed by Axemen in the Department of Public Works, and that for the present the duties of Chainmen can be performed by Axemen. We therefore recommend that the position of Axemen be established, and it is desirable that this Commission shall establish the grade of Axemen in the service, who will not be subject to Civil Service rules, and when the force of Chainmen requires additions that they be subject to Civil Service rules, the grade of Chainmen in all departments of City and State being subject to said rules.

Your Committee, therefore, recommend that the action of the Commissioners on December 1st, as to the appointment of

| | |
|---|---|
| Richard A. Reinisch, | George J. Deitz, |
| Edward A. Byrne, | H. Brown Alderson, |
| W. Mitchell, | John R. Yale, |
| John E. Hayes, | William Horton and |

Henry Cantor,

as Chainmen be revoked."

In connection therewith, Commissioner BARNES offered the following resolution:

*Resolved*, That the recommendation of the Civil Service Committee be approved, and the position of Axeman be and it is hereby established.

Adopted.

The Committee on Construction submitted the following report:

"The Committee on Construction having had under consideration the communication of the Chief Engineer, dated December 15th, hereto attached, on the subject of the necessity of appointing two additional Assistant Engineers, two Rodmen and one Topographical Draughtsman, report their approval of the requisition, and recommend that the following names be transmitted to the Civil Service Commissioners for examination, viz.:

E. F. Playle, to be examined for promotion to Assistant Engineer.

William D. Kelly, Jr., to be examined for Assistant Engineer.

Maurice A. Viele, now a Chainman, to be examined as to his qualifications for a Rodman."

Adopted.

Also the following report:

"That at a meeting of the Committee held on the 17th inst., a communication was received from the Chief Engineer, requesting that an appropriation be made for the purpose of constructing small shanties along the line of the Aqueduct where needed, and stoves to heat the same, to enable the Division and Assistant Engineers and Inspectors to change and dry their clothing after coming out of the shafts; and after consideration, on motion it was

*Resolved*, That the request of the Chief Engineer be and the same is hereby approved by this Committee, and that we recommend to the Commissioners that the

expenditure be authorized for constructing said shanties, they to be built as economically as possible, and at an expense not to exceed $70 each, which shall include such stoves as may be needed."

Adopted.

Also the following report:

"The Committee on Construction having been notified that the Committee on Civil Service advise that the appointment of Chainmen made on December 1, 1886, be revoked, and that as the duties of Chainmen can, for the present, be performed by Axemen, the Committee on Construction beg leave to report the names of the following as suitable persons for the positions of Axemen, and recommend their appointment:

| | |
|---|---|
| Richard A. Reinisch, | Edward A. Bryne, |
| George O. Holland, | John E. Hayes, |
| John P. R. Taaffe, | Joseph McCusker, |
| George J. Deitz, | H. Brown Alderson, |
| John R. Yale, | William Horton, |
| John T. Ward, | Henry Cantor." |

Adopted.

The Committee on Real Estate submitted the following report:

"The Committee on Real Estate make the following report upon matters connected with the double reservoirs upon the East Branch of the Croton River, at Sodom.

The Department of Public Works has now prepared amended maps showing the additional parcels of lands to be taken for the purpose of changing certain highways bordering upon said reservoirs, and relocating said

roads; also showing the additional parcels required by some modifications deemed necessary in the construction of the main reservoir, and of the outlet from the subsidiary reservoir. But before said amended maps can be approved by you, it is necessary that the Aqueduct Commissioners and the New York and New England Railroad Company shall agree upon the relocation of that part of the railroad of which the present location will be overflowed. To this end this Committee has been in conference with the representatives of the railroad company, and have come to an informal understanding with them upon said new location, the manner of constructing the railroad thereon, and the cost thereof, and upon request of this Committee Messrs. Heman Clark and William H. Starbuck have been appointed by the Board of Directors of that company a committee with power to settle this matter with the Aqueduct Commissioners, and by the time of your next meeting we expect all matters of detail can be agreed upon.

The engineers of this Commission and of the railroad company have had many conferences upon the mode of construction and cost of said new part of said railroad, and have agreed upon the sum of $110,000 as the total cost of such construction. To this sum must be added the counsel fees, for which the company asks an allowance of $2,500, making the total sum of $112,500 as the cost of making the proposed change in said railroad, and which sum the railroad company ask shall be stipulated as the amount to be awarded to them by the Commissioners of Appraisal as compensation for said change of the road to be built by them.

The legal steps to be taken to affect the proposed change of the right of way of the railroad company are also to be

arranged by stipulation between the counsel of the respective parties, and a form thereof has been informally agreed upon by them.

We recommend that this Committee, together with the Counsel to the Corporation, be empowered to complete all the details necessary for carrying out the proposed settlement, and relocating the railroad upon the plans and maps of said reservoirs."

Commissioner BARNES moved that the report be referred to a special meeting of the Commissioners to be held on Monday next, 27th inst., when all the facts and information in the hands of said Committee relating to the subject matter of said report shall be placed at the disposal of the Commissioners.

The same was adopted, Commissioner Ridgway voting in the negative.

Also the following report:

"The Aqueduct Commissioners having some time since announced their purpose to take the fee in lieu of the existing easement upon the lands of Joseph P. Disbrow in the Twenty-fourth Ward of this city, and known as 'Parcels Nos. 71, 72 and 73' of the property maps, and said Disbrow having protested against said taking of the fee, and offered to convey to the City for a nominal consideration the right to construct and maintain the new Aqueduct through said lands upon conditions to be mutually agreed upon, negotiations were entered into with him, and as the result thereof we now submit to you for your approval the form of a conveyance to be made by said Disbrow, and also of an agreement to be made with him

by the Aqueduct Commissioners for the submission to the Commissioners of Appraisal of the claims of said Disbrow for damages to his adjoining property inflicted by and during the construction of said Aqueduct; and we recommend the adoption by you of the accompanying resolution, viz.:

*Whereas*, The Aqueduct Commissioners contemplated taking the fee in lieu of the easement in perpetuity heretofore acquired in the lands of Joseph P. Disbrow upon the line of the new Aqueduct in the Twenty-fourth Ward of this city, and designated 'Parcels No. 71, 72 and 73' upon the map filed in the office of the Register of the City and County of New York on the 9th day of July, 1884, and to which taking in fee the said Disbrow objected, and offered to convey to the City for the nominal consideration of one dollar the right to construct said Aqueduct through and across his lands in the manner approved by the said Commissioners, on condition that the fee of said parcels be not taken and that said Disbrow retain the right to occupy and use the surface of said lands under restrictions necessary for the protection and maintenance of said Aqueduct, and upon the further condition that such conveyance of said lands should in no manner prejudice the rights of said Disbrow to compensation for damages, if any, inflicted upon his adjoining lands by and during the construction of said Aqueduct; and

*Whereas*, Proper forms of such conveyance and of an agreement for submission to the Commissioners of Appraisal of the said claims of said Disbrow have been

this day submitted to and approved by us; now, therefore, be it

*Resolved*, That the President and Secretary of this Commission are hereby authorized to accept the said conveyance from said Disbrow, and on behalf of the Aqueduct Commissioners to execute and deliver the said agreement of submission, when said conveyance and agreement shall have been duly approved by the Counsel to the Corporation."

Adopted.

A communication was received from the Counsel to the Corporation, addressed to the Secretary, calling attention to the fact that monuments such as were suggested by him on the 11th of August last had been placed at certain points on the boundary of the property required for the Sodom Dam and Reservoir, and stating that it was practicable to reduce the advertisement heretofore received from the Commissioners so as to very materially reduce the length and the consequent expense of publication, and requesting that an Assistant Engineer be detailed to Mr. Dykman for the purpose of being placed in possession of data to correct and shorten the description of said property.

On motion of Commissioner BARNES, the same was referred to the Committee on Real Estate.

The Chief Engineer submitted the following communication:

"I hereby certify that the contracts for iron work for waste weirs at Pocantico and Tibbett's Brook, made with Coldwell, Wilcox & Co., have been completed, and the

iron work delivered according to contract. Also that Coldwell, Wilcox & Co. have delivered the iron work contracted for with them at Saw Mill River.

I therefore recommend that the above-mentioned work be accepted."

In connection therewith, Commissioner FISH offered the following resolution:

*Whereas*, The Chief Engineer of this Commission has certified in writing that in his opinion Coldwell, Wilcox & Co. have completely performed their agreement made with this Commission on the 4th day of August, 1886, for furnishing the iron work and the labor and material necessary for the Blow-offs and Waste Weirs at Pocantico and Tibbett's Brook, and has stated from actual measurements the whole amount of work done and materials furnished under and according to the terms of said agreement, and of the true value thereof, and said Coldwell, Wilcox & Co. having furnished to this Commission satisfactory evidence that the claims of all persons who have done work or furnished materials under said agreement have been duly paid or satisfactorily secured; now, therefore,

*Resolved*, That the Aqueduct Commissioners do accept the work done and materials furnished by Coldwell, Wilcox & Co. under their agreement made with this Commission on the 4th day of August, 1886, for furnishing the iron work and the labor and material necessary for putting the same in place for the Blow-offs and Waste Weirs at Pocantico and Tibbett's Brook, and that a proper voucher for the final pay-

ment for work done and materials furnished under said agreement be approved by the Commissioners and certified to the Comptroller for payment."

On motion of Commissioner RIDGWAY, the whole subject matter was referred to the Committee of Finance and Audit.

The Comptroller, under date of the 18th inst., gave notice of the issue of warrants for vouchers not certified to by the Aqueduct Commissioners for Westchester County Section, $4,856.83; New York County Section, $3,950; which were ordered entered upon the books of this Commission and filed.

A communication was received from Edward L. Allen, Stenographer, asking that his salary be increased to $1,500 per annum, such increase to take effect as of the 1st of January next; which was referred to the Committee of Finance and Audit.

Commissioner BARNES offered the following resolution, and moved its adoption:

*Whereas*, The State Civil Service Board and the Supervisory Civil Service Board of the city have decided to have a Special Board of Examiners for the examination of applicants for employment by the Aqueduct Commission, said Board to consist of two Civil Engineers to be designated by the Aqueduct Commission, and approved by the Mayor, the Civil Engineer of the Examining Board, and the Secretary of the Civil Service Board; therefore,

*Resolved*, That this Commission designates Chief Engineer Church and Principal Assistant Engineer Pugsley to

act as members of the Examining Board, subject to the approval of the Mayor.

Adopted.

The Chief Engineer presented the following communication out of its regular order:

"I have to report that hoist house and compressor room at Shaft 21 burned on the morning of the 21st inst., badly damaging the machinery, and work is stopped there in consequence."

Ordered to be filed.

Commissioner RIDGWAY offered the following resolution as an amendment to the By-Laws:

"Amend Section 2 of Article III. so as to read:

SECTION 2. A Committee on Construction consisting of five members, that shall be an Executive Committee of the Aqueduct Commissioners, with full powers of direction and supervision over the work of construction, and over the engineers, officers and employees engaged therein, and the offices and property in their charge, subject, however, to the authority and direction of the Aqueduct Commissioners at all times.

The orders of said Committee, through the Chief Engineer or a Principal Assistant Engineer, shall be observed and obeyed by the members of the Engineer Corps, and said Committee shall have the power to suspend any engineer or employee of said corps, but such suspension and the reason therefor shall be reported to the Aqueduct Commissioners, and be subject to their final direction in the premises.

Said Committee shall organize by the appointment of a Chairman, Vice Chairman and Secretary, the latter officer to be selected from the members of the Committee or from the clerical force of the Commission without extra compensation, and the adoption of necessary rules for the transaction of its business, and a clerk shall be assigned to their service. Said Committee shall examine, consider and report upon all other matters referred to it by the Commissioners, and shall report to them weekly its actions and proceedings through its Chairman."

Laid over under the rules.

Mr. H. T. Dykman, representing the District Attorney of Westchester County, informed the Commissioners that contractors Brown, Howard & Co. had been indicted by the Grand Jury of said county for obstructing and endangering a highway at the Pocantico Open Cut in North Tarrytown, and that unless the obstructions were removed and the highway made safe, the Commissioners would also be indicted by said Grand Jury.

Commissioner NEWTON moved that the Chief Engineer be directed to personally examine and see that any obstruction of the highway at that point is removed at once, and to place the same in proper condition, in accordance with the agreement between the Board of Trustees of the Village of North Tarrytown and the Aqueduct Commissioners.

Carried.

Commissioner RIDGWAY offered the following resolution:

*Resolved,* That the Secretary be instructed to report to this Commission at its next meeting the number of special

or expert commissions appointed by this Commission since its formation, stating the purpose for which each was appointed, and the items of expense incurred by each commission so appointed.

Adopted.

Commissioner FISH offered the following resolution:

*Resolved*, That William P. O'Mara be appointed Laborer, in place of William McCormick, who has declined to serve; also that the resignation of William McCormick be accepted.

Adopted.

Commissioner FISH offered the following resolution:

*Whereas*, The Court of Appeals has held that the appointments under this Commission are subject to the Civil Service rules, and it is the intention of the Commission to observe the Civil Service rules; and

*Whereas*, It is important to fill a vacancy which has existed for several months in the office of Chief Clerk in the Chief Engineer's office; therefore

*Resolved*, That this Commission requests the Civil Service Board to hold an examination at an early day for the purpose of filling such vacancy, a week's notice of such examination to be given to this Commission, so that any of its clerks may compete for the same together with any others not holding positions under this Commission.

Adopted.

Commissioner FISH moved to reconsider the action of the Commissioners taken at their meeting held on the 8th

inst., with reference to employing a commission of experts to examine into and advise the Commissioners as to the feasibility of the construction of the Quaker Bridge Dam.

Commissioner SPENCER moved that the same lay on the table until the first Stated Meeting of the Commissioners to be held in January next.

Carried.

Commissioner FISH offered the following resolution as an amendment to the By-Laws:

"Amend Section 1 of Article II. so as to read as follows: A President and Vice-President who shall be elected from said Commissioners; the President, however, shall not serve as a member of any Standing Committee; and the official term of the President and Vice-President shall be until the first Stated Meeting of the Commissioners in the January next succeeding the time of their election, and until their successors shall be elected."

Laid over under the rules.

The Commissioners then adjourned to meet on Monday next, 27th inst., at 3 o'clock P. M.

JOHN C. SHEEHAN,
*Secretary.*

# MINUTES OF SPECIAL MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, on Monday, December 27, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *the Commissioner of Public Works, and Commissioners* BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH.

The reading of the minutes of the Stated Meeting of the 22d inst. was laid over until the next regular meeting.

The report of the Committee on Real Estate, having reference to the relocation and construction of that part of the New York and New England Railroad Company, adjoining the Sodom Dam and Reservoir, which was referred to a Special Meeting of the Commissioners to be held on this day, was then taken up and considered by the Commissioners. After considerable discussion, Commissioner SPENCER offered the following resolution and moved its adoption:

*Resolved*, That the Committee on Real Estate, together with the Counsel to the Corporation, be authorized

and empowered to complete all the details necessary for carrying out the proposed settlement with the New York and New England Railroad Company, as set forth in the report of the Committee on Real Estate, of December 22, 1886, in reference to the change of the location of the railroad of said company in accordance with plans and maps of this Commission; provided that in said settlement the said company shall contract and agree to the location and the plans to be annexed to and form a part of the said contract, namely: a roadbed twenty-eight feet wide at grade on embankments, all embankments to be of rock, and cuttings to be twenty-six feet wide at grade, said grade, meaning the elevation of the roadway, two feet below the bottom of the rail, this agreement not to include the cost of ties, rails, track laying and fencing, the cost of which is to be paid by said company.

The same was adopted by the following vote:

*Affirmative—Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioner Barnes.*—4.

*Negative—Commissioners Ridgway and Fish*—2.

Commissioner Ridgeway stated that he wished to go on the record as being opposed to the report of the Committee and to the adoption of the resolution, as he believed from the information he was able to get during the limited time the matter had been before the Commission (not having heard of it before last Wednesday), that the amount paid was excessive; and he therefore voted in the negative.

Commissioner Fish stated that he voted in the negative for the same reasons.

Commissioner BARNES then moved that the action of the Secretary in advertising in the *City Record*, New York *World*, *Star* and *Tribune*, for proposals for the construction of the new Gate House at One Hundred and Thirty-fifth street (being Section 15 of the new Croton Aqueduct), be and the same is hereby approved.

Carried.

Commissioner BARNES then moved that the Secretary be instructed to have published in the *Sanitary Engineer* and *The Engineering News and Contract Journal* an abbreviated form of the advertisement for proposals for the construction of the new Gate House at One Hundred and Thirty-fifth street (being section 15 of the new Croton Aqueduct), and calling attention to the advertisement now appearing in the *City Record*, asking for proposals for said work.

The same was adopted, the Commissioner of Public Works voting in the negative.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

MINUTES OF STATED MEETING

OF THE

# AQUEDUCT COMMISSIONERS,

Held at their Office, No. 209 Stewart Building, on Wednesday, December 29, 1886, at 3 o'clock P. M.

---

Present:

*Commissioners* SPENCER, DOWD, *the Commissioner of Public Works and Commissioners* BALDWIN, BARNES, RIDGWAY and FISH.

Also *Chief Engineer* CHURCH, and *Chief Engineer* BIRDSALL of the Department of Public Works.

The minutes of the Stated Meeting of the 22d inst. and of the Special Meeting of the 27th inst. were read and approved.

The Committee of Finance and Audit reported their examination and audit of voucher No. 2271, being sub-estimate No. 1, for work done by O'Brien & Clark on Section 8, amounting to $4,500; also their examination and audit of bills contained in vouchers Nos. 2275 to 2286, inclusive; and on motion of Commissioner DOWD the same were approved and ordered certified to the Comptroller for payment.

The Committee of Finance and Audit submitted the following report:

"The Committee of Finance and Audit, to whom was referred the subject matter of accepting the work done for the Commissioners by Messrs. Coldwell, Wilcox & Co., report that the work called for in the contracts with said Coldwell, Wilcox & Co., on the 4th day of August, 1886, consisted of bolts, washers, separators, brackets, etc., for the Blow-offs and Waste Weirs at Pocantico and Tibbett's Brook, to be delivered at the site of said Blow-offs and Waste Weirs, and that said work was to be paid for when so delivered and accepted by the Chief Engineer. That the said iron work has been furnished and delivered in accordance with said contract, and accepted by the Chief Engineer, and inasmuch as the said Coldwell, Wilcox & Co. have furnished satisfactory evidence that the claims of all persons who have done work or furnished materials under said agreement have been paid or satisfactorily secured, we recommend the adoption of the following resolution:

*Resolved*, That the Aqueduct Commissioners do accept the work done and materials furnished by Coldwell, Wilcox & Co. under their agreement made with this Commission on the 4th day of August, 1886, for furnishing the iron work necessary for the Blow-offs and Waste Weirs at Pocantico and Tibbett's Brook; and that proper vouchers for the final payment for work done and materials furnished under said agreement be approved by the Commissioners and certified to the Comptroller for payment."

Adopted.

The Committee next reported in favor of the adoption of the following resolution:

*Resolved*, That the salary of Edward L. Allen, Stenographer and Clerk, be fixed at $1,250 per annum, to take effect January 1, 1887.

Adopted.

The Committee on Construction submitted the following report:

"That at their meeting of this date the name of C. Wilson Atkins was considered as an applicant for the position of Inspector of Masonry, and it being found that he was eligible for such position, the Committee recommend that he be appointed as an Inspector of Masonry, to take effect from the 1st of January, 1887."

Commissioner RIDGWAY moved to lay the report of the Committee on the table for one week so that the Commissioners could ascertain if Mr. Atkins was eligible for such position.

The same was lost by the following vote:

*Affirmative* — *Commissioners Barnes, Ridgway and Fish*—3.

*Negative*—*Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioner Baldwin*—4.

The report of the Committee was then adopted.

The Committee also submitted for the consideration of the Commissioners a communication received by them from the Chief Engineer with regard to the cement now

in use on the line of the Aqueduct, which was read and ordered placed on file.

The Committee next reported the following amendments to the By-Laws in regard to the Engineer Corps:

"*Resolved*, That the following section shall be added to Article III. of the By-Laws, as Section 5:

"SECTION 5. The Aqueduct and the construction work thereof shall be divided into two districts, and subdivided into five divisions. The districts shall be designated respectively as the 'Northern District' and the 'Southern District,' each of which shall be under the care and supervision of a Principal Assistant Engineer. The five divisions shall be designated respectively as 'First,' 'Second,' 'Third,' 'Fourth' and 'Fifth' Divisions. Other divisions upon the dams and reservoirs may be added by resolution as the work progresses, and the same shall be required.

The First and Second Divisions and the dams and reservoirs on the Croton River shall constitute the Northern District, and the Third, Fourth and Fifth Divisions, and connections with the Central Park Reservoirs, shall constitute the Southern District.

Each division shall be under the care and supervision of a Division Engineer, subject to the orders and supervision of the Principal Assistant Engineer in charge of the district of which it is a part.

"*Resolved*, That Section 3 of Article V. be amended by inserting after the word 'Commission' in the second paragraph these words: 'He shall report at least once a week the progress, condition and requirements of the work to the Committee on Construction.'

"*Resolved*, That Section 2 of Article V. shall be amended by adding after 'Division Engineers,' No. 4 on the list, the following:

5. Assistant Engineers.
6. Junior Assistant Engineers.
7. Transitmen and Levelers.
8. Draughtsmen.
9. Rodmen.
10. Chainmen.
11. Inspectors.
12. Axemen.
13. Janitors, Overseers and Messengers.
14. Watchmen, Drivers, Laborers, and others in a subordinate capacity.

"*Resolved*, That Section 4 of Article V. be amended to read as follows:

"SECTION 4. Principal Assistant Engineers.

The Principal Assistant Engineers are the supervising engineers of construction and other work in the field, and are the immediate superiors of the Division Engineers and their parties. They shall have the charge and supervision in their respective districts of the work of survey, alignment, management and construction upon the Aqueduct and within the tunnels and shafts thereof, and of the parties engaged therein under the Division Engineers; and they shall be held responsible for the correctness and accuracy of said work. They must communicate with and report to the Chief Engineer, and the Chief Engineer shall report a copy of the same to the Committee on Construction at least once a week in

regard to the work in their charge; and they are authorized to communicate with the Chief Engineer in regard to any important matter within their line of duty wherein they require advice or direction. They shall examine and certify to the Chief Engineer all measurements and estimates for payments to contractors.

All plans, instructions and orders that are to be executed by the Division Engineers in the construction work shall be transmitted by the Chief Engineer in duplicate to the Principal Assistant Engineers, and they shall supervise and direct the Division Engineers in their execution. If a difference of opinion as to the execution of any plans, orders and instructions of the Chief Engineer shall arise between a Principal Assistant Engineer and a Division Engineer, the former shall immediately report the same to the Chief Engineer, and the Chief Engineer shall promptly give his orders in reference thereto, and the same shall be obeyed. All other orders or instructions that they receive from the Chief Engineer they shall execute promptly. Their principal duties shall be in the field, that by constant personal examination they can know at all times, and be able to keep the Chief Engineer constantly and fully informed in regard to the condition and progress of the work.

The Principal Assistant Engineers shall devote their whole time and attention to the discharge of their field and office duties. They are hereby authorized to and may suspend, for cause, any engineer or employee under their command, reporting such suspension and the facts and cause thereof immediately to the Chief Engineer. The Principal Assistant of the

Northern District shall have charge of the property of the Commission in the headquarters of the Engineer Corps at Tarrytown, and his office shall be at said headquarters; and the Principal Assistant of the Southern District shall have an office assigned to him within his district, and he shall have charge of the property of the Commission in said office; and they shall have such assistants assigned to them, and under their immediate command, as shall enable them to perform the duties herein prescribed."

Laid over under the rules.

Commissioner NEWTON suggested that each member of the Commission be furnished with a typewriter copy of the amendments referred to in the report of the Committee.

Commissioner FISH moved that the Secretary be instructed to furnish each member of the Commission with a typewritten copy of the amendments as proposed in the report of the Committee, and also the proposed amendments now before the Commissioners.

Carried.

The Committee on Real Estate submitted the following report:

"The Committee on Real Estate report that in the adjustment of the matter of damages for the change of the location of the railroad of the New York and New England Railroad Company, your Committee met the Committee of the said company on the 28th inst. by appointment, and proposed the settlement suggested in the last report of this Committee, namely, one hundred and twelve

thousand five hundred dollars. After some discussion the Committee declined to accept the terms at that meeting, and requested an adjournment of this Committee to meet them on Monday, January 3, 1887, and your Committee acceded to their request."

Ordered filed.

A communication was received from the Chief Engineer, calling attention to the resolution adopted at the meeting of the 22d inst., relative to filling the vacancy of Chief Clerk existing in his office, in accordance with Civil Service Regulations, and recommending that such vacancy be filled by promotion without outside competition, and in accordance with Regulation 52 of such Civil Service Regulations.

Commissioner FISH moved that the resolution adopted on the 22d inst., with reference to filling such vacancy, be reconsidered, and that competition for promotion to the Chief Clerkship in the Chief Engineer's office be open to any employee of the Aqueduct Commissioners.

Carried.

Commissioner FISH then moved that the Commission request the Civil Service Board to hold an examination at an early day, for the purpose of filling the position of Chief Clerk to the Chief Engineer by promotion from the clerks in the employ of the Aqueduct Commissioners.

Carried.

The Chief Engineer then submitted a report, showing the condition of light and ventilation in all the tunnels of the Aqueduct, in which he stated that no gasoline torches are in use in the tunnels, and that the light and ventilation

are in a fair condition except on John Brunton & Co.'s work, where electric lights will soon be in operation.

In connection therewith the Chief Engineer submitted a report of Dr. Raymond and Mr. McQuail, the experts appointed to inquire into the condition of the light and ventilation in the tunnel and shafts of the Aqueduct.

Commissioner BARNES moved that the reading of the report be dispensed with, and that the same be referred to the Committee on Construction.

Carried.

The Secretary then submitted the report called for by resolution adopted by the Commissioners on the 22d inst., showing the number of special or expert commissions appointed by the Aqueduct Commission since its formation, which was read and ordered placed on file.

A communication was received from C. J. Febre, the Bookkeeper of the Commissioners, requesting that his salary be increased from $1,500 to $1,800 per annum.

Referred to Committee of Finance and Audit.

A communication was received from Alexander Beckers, having reference to the proposed construction of the Quaker Bridge Dam, which was read and referred to the Committee on Construction.

Commissioner FISH offered the following resolution and moved its adoption:

*Whereas*, The Counsel to the Corporation is of the opinion that this Commission has not the power to

condemn the lands and road-bed of the New York and New England Railroad near Sodom; and

*Whereas*, It is important for the City of New York that there should be no further delay in building said dam; therefore

*Resolved*, That the Counsel to the Corporation be requested to prepare a bill to be introduced at the opening of the Legislature, so as to authorize the change of location of the New York and New England Railroad near the Sodom Dam.

Commissioner NEWTON moved that the resolution lay over for one week, and the same was carried by the following vote:

*Affirmative—Commissioners Spencer, Dowd, the Commissioner of Public Works and Commissioners Barnes and Ridgway*—5.

*Negative—Commissioner Fish*—1.

Commissioner Baldwin was excused from voting.

The Commissioners then adjourned.

JOHN C. SHEEHAN,
*Secretary.*

# INDEX.

(A)


ABSTRACT— PAGE

Of expenditures of Commissioners to June 30, 1886, referred to Committee of Finance and Audit..... 169

ACADEMY OF THE SACRED HEART—

Secretary directed to transmit copy of report of Division Engineer in charge of work at Shaft 32 to counsel of..... 107

Chief Engineer instructed to direct and enforce performance of work described in said report ..... 107

ACCIDENTS—

Chief Engineer to make thorough examination, and give necessary orders for prevention of ..... 8

Secretary directed to obtain opinion of Counsel to the Corporation in relation to jurisdiction of Commissioners of Accounts over reports of Engineers of Aqueduct Commissioners and contractors of New Aqueduct, on..... 49

Communication of Lewis G. Morris in relation to ..... 52

Opinion of Counsel to the Corporation adverse to jurisdiction asserted by Commissioners of Accounts in relation to; Secretary directed to transmit copy of same to Commissioners of Accounts..... 53

Communication from Commissioners of Accounts in relation to ..... 57

Chief Engineer to report cause of accidents at Shafts 16 and 17, and what precautions should be taken to prevent accidents on the Aqueduct work..... 337

Chief Engineer reports on above..... 365

ACCOUNTS—

Of Examining Engineers Greene, Newton and Gillmore referred to the Committee of Finance and Audit..... 187

ACCOUNTS—(Continued.) PAGE
Of the Aqueduct Commissioners; Commissioners of Accounts authorized to make such examinations as they may desire..... 227

ADDITIONAL WATER FUND—
Comptroller gives notice of balance remaining to the credit of; to be $777,956.66 ..... 131
Comptroller gives notice of credit of $2,100,920 to..... 157
Secretary directed to furnish statement showing amount paid out of; for expenses of Commissioners of Appraisal.... ..... 245
Secretary submits above statement..... ..... 251
Resolution requesting Governor to investigate all expenditures of moneys paid out of; for Aqueduct purposes—lost..... 278

ADDITIONAL WATER STOCK—
Comptroller requested to raise $2,000,000 on; for uses and purposes of Aqueduct Commissioners..... ..... ..... 128
Comptroller gives notice of sale of $2,000,000 ..... .... 157
Comptroller requested to raise $2,000,000 on; for use of Aqueduct Commissioners..... 333

ADVERTISEMENT—
Communication from Counsel to Corporation regarding proof of; for Shafts 8 and 15½, referred to Chief Engineer to report to Committee on Real Estate ..... 401
For construction of Section 15; action of Secretary in publishing same approved..... 420
Secretary directed to publish abbreviated form of; for bids or proposals for construction of Section 15, in *Sanitary Engineer* and *Engineering News and Contract Journal*..... 420

AGREEMENT—
Making of agreement with Jeremiah Mahoney for land at Pocantico Cut and Blow-off for $2,000, approved..... ..... 43
Secretary directed to submit same to Board of Estimate and Apportionment for approval..... .... 44
President and Vice-President authorized to execute agreement with Jeremiah Mahoney for land at Pocantico Cut and Blow-off for $2,000..... ..... 52
Secretary directed to furnish Commissioners of Appraisal for Westchester County with details of all agreements made by Aqueduct Commissioners with owners of lands on New Aqueduct, and nature of rights acquired by City under same..... 61
To be made with Cyrus W. Field for temporary use of his land at cave in south of Shaft 13 ..... 68
To be made with O'Brien & Clark for work on cave-in south of Shaft 13; cost not to exceed $5,000 ..... 68
Secretary directed to have same approved "as to form" by Counsel to Corporation ..... ..... ..... 80
Secretary and Chief Engineer to submit form of; for Shaft No. 21½.. 91
Secretary and Chief Engineer submit above; same adopted..... 97

AGREEMENT—(Continued.) PAGE
To be made with Charles Peterson for constructing a crib-dock on westerly side of Harlem River near Shaft 25 ..... 174
President authorized to execute above ..... 174
To be made with Coldwell, Wilcox & Co. for furnishing iron-work for Waste Weir Gate Houses at Pocantico, Saw Mill River, and Tibbitt's Brook, for $2,333 ..... 180
President authorized to execute above ..... 347
Of submission to Commissioners of Appraisal of claims of Joseph P. Disbrow; President and Secretary authorized to execute on behalf of Commissioners ..... 409

AGUIRRE, A. A.—
Recommendation of Chief Engineer that three months leave of absence without pay be granted to; also that pay be allowed to, for January, March, May and October, 1886, time absent on account of illness, referred to Committee of Finance and Audit ..... 384
Granted four months leave of absence, without pay; and allowed 60½ days' pay for time absent on account of sickness during January, March, May and October, 1886 ..... 391

AIR-BOX—
Opinion of Counsel to Corporation in relation to removing air-box on Section 2 at Croton Dam, filed ..... 76

ALDEN, H. C.—
Assigned as Rodman to Fifth Division ..... 225

ALDERSON, H. BROWN—
Appointed Chainman ..... 382
Appointment as Chainman revoked ..... 405
Appointed Axeman ..... 407

ALLEN, EDWARD L.—
Elected Secretary Committee on Construction ..... 280
Communication from; requesting that his salary be increased to $1,500 per annum, referred to Committee of Finance and Audit ..... 413
Salary fixed at $1,250 per annum ..... 423

AMERICAN JOCKEY CLUB (AUGUST BELMONT, PRESIDENT)—
Remonstrance from; against taking of lands in Jerome Park for new reservoir ..... 88

ANDERSON, WILLIAM C.—
Appointed Inspector of Masonry ..... 231

APPOINTMENTS—
Charles T. Kalmbach ..... } as Tunnel Inspectors ..... 6
William W. Wheeler ..... }
Duncan McRae Livingstone as Tracer ..... 30

APPOINTMENTS—(Continued.) PAGE

Martin Kennedy as Rodman..... 41

William R. Hutton (authorized to assist Chief Engineer at $6,000 per annum)..... 54

Arthur B. Satterlee..... } as Laborers on Sixth Division..... 75
John Surrigan.....

George C. Glatt as Laborer on Fifth Division..... 80

J. C. Lulley as Auditor..... 82

Arthur B. Sinclair as Office Boy..... 141

Charles E. Taft..... }
John C. Dooley.....
Lawrence Manning.....
William J. McKeon .....
John E. Lynch..... } as Inspectors of Masonry..... 155
James C. Ryan.....
Isaac Thomas.....
Bernard Fitzgerald.....
Thomas McCormick.....

Alphonse Fteley as Consulting Engineer..... 189

J. Imbrie Miller..... } as Principal Assistant Engineers..... 201
Charles Pugsley.....

John C. Sheehan as Secretary..... 209

James W. McCulloh as Special Assistant to Chief Engineer..... 211

Maurice A. Viele..... }
Charles B. Nooney..... } as Chainmen..... 217
J. N. H. Cornell.....

Joseph Ryan..... }
Sarsfield Kennedy.....
Robert Dewitt..... } as Chainmen..... 220
Cornelius J. Lynch.....

John F. O'Brien as Inspector of Masonry..... 220

William A. Shepard..... }
John T. Havanagh ..... } as Inspectors of Masonry..... 231
William C. Anderson.....

Charles K. Gracie as Assistant Engineer..... 246

Gaylord Thompson.....
Henry H. Bowly.....
Michael J. Hyland.....
William H. Langler..... } as Inspectors of Masonry..... 339
Robert Montgomery.....
Collins Y. Peters.....

Gracie S. Roberts..... }
James Quinn..... } as Inspectors of Masonry..... 342
Edward Fox.....

William B. Swan as Assistant Engineer..... 342

J. H. Hawes as Laborer..... 342

Daniel Murray as Inspector of Masonry..... 355

William Cushing as Inspector of Masonry..... 377

APPOINTMENTS—(Continued.) PAGE

Richard A. Reinisch.....
Edward A. Byrne.....
W. Mitchell.....
John E. Hayes.....
George J. Deitz..... } as Chainmen..... 382
H. Brown Alderson.... ...
John R. Yale.....
William Horton.....
Henry Cantor.....

Above appointments of Chainmen revoked..... ..... 405

William Whalen.. .....
Peter Nevin..... .. ..
William McCormick.... ..
Michael Corkey..... } as Laborers..... 382
James Hayes.....
John T. Ward.....

George L. Tillotson.....
John F. Tierney.....
Francis O'Hare.....
Joseph W. Hale.....
Charles E. Richards.....
William J. Daly.....
John Boyle.....
Robert J. Fletcher.....
Thomas Graham..... ..
William Klein.... .....
Lincoln Frank..... } as Inspectors of Masonry..... ..... 388
William Fitzgerald.....
John P. Schermerhorn....
John Toomey.....
John E. Fitzgerald.....
Benjamin H. Brevoort.....
James O'Neill.....
Frank S. Whittier.....
Joseph R. Swain.....
John Donnelly.....

Richard A. Reinisch.....
George O. Holland.....
John P. R. Taaffe. .....
George J. Deitz.....
John R. Yale.....
John T. Ward.. .....
Edward A. Byrne..... } as Axemen..... ..... 407
John E. Hayes.... .....
Joseph McCusker.....
H. Brown Alderson.... ..
William Horton.....
Henry Cantor.....

APPOINTMENTS—(Continued.) PAGE
William P. O'Mara as Laborer..... 416
C. W. Atkins as Inspector of Masonry..... 428

APPRAISAL—(See "Commissioners of Appraisal.")

APPROPRIATIONS—
$500 for additional copies of disc diagrams..... 11
$112 for contract drawings for Sections 12, 13 and 14 ..... 29
$1,250 for instruments..... 84
$250 for office furniture for Division 7..... 84
$2,000 for payment of expenses of Board of Examining Engineers, and Stenographer's fees reporting proceedings of said Board..... 115
$250 for auxiliary office at Pocantico Cut and Blow-off..... 123
$25 additional for auxiliary office at Pocantico Cut and Blow-off ..... 158
$450 for photo-lithographing copies of contract drawings of Gate House at 135th Street and Convent Avenue..... 216
$250 for transit for Division Engineer Gowen's party at Shafts 5 and 6..... 266
$500 for five disc diagram machines and one level..... 312
$460 for instruments..... 314
$100 for models of difficult construction in masonry at intersection of shafts with Aqueduct arch..... 314
$400 for mounting and binding contract drawings for Gate Houses on Sections 1 and 15; and also for Sections 12, 13 and 14 ..... 314
$150 for instruments and floor covering for 125th Street office..... 326
$100 for twelve disc rods..... 359
$498 for mounting, binding, etc., of land maps for right of way, in fee, between Croton Dam and Harlem River..... 390

AQUEDUCT—
Report of Chief Engineer on cost per mile of lining sides and roof of; laid over..... 7
Communication from Chief Engineer in relation to lining Aqueduct at Shafts 5 and 9..... 42
Southern terminus of; fixed at Central Park Reservoir..... 43
Chief Engineer directed to order Aqueduct to be lined with masonry throughout its entire length..... 57
Chief Engineer and Secretary authorized to obtain from Departments of City permits for doing work on Aqueduct in City limits..... 61
Southern terminus of; fixed at new reservoir in Central Park..... 104
Chief Engineer directed to have surveys made showing modifications to be made in location of; at Shaft Site No. 8..... 112
Committee on Construction to consult Counsel to Corporation in relation to course of action to be taken to acquire lands for Aqueduct, from New York County line to Croton Lake..... 136
Committee on Construction to consult Counsel to Corporation with regard to power of Commissioners to order Contractors (except upon Sections A and B) to construct additional shafts on line of..... 137

AQUEDUCT—(Continued.) PAGE

Report of Committee on Construction adverse to change of line of; at Shaft Site No. 8, laid over..... 137
Chief Engineer reports on proposed change in line of; at Shaft Site No. 8..... 144
Commissioners decline to make change in line of; at Shaft Site No. 8. 144
Chief Engineer reports on fee and easement in lands upon line of.... 145
Proceedings to be initiated to acquire fee simple in nearly all lands between Croton River and the 135th Street Gate House on line of.. 149
Secretary instructed to furnish lithographic copies of plans of; to Comptroller..... 150
Request of James O'Friel for an examination of a new material for arches, etc., for lining of; referred to Chief Engineer..... 152
Commissioner of Public Works requested to report plans for; between 135th Street and Central Park Reservoir..... 155
Public hearing to acquire fee in lieu of easement in nearly all the lands on the line of; between Croton River and the 135th Street Gate House..... 162
Public hearing on above resumed..... 165
Continued and closed..... 171
Commissioner of Public Works submits maps, plans, estimates and specifications for a conduit or pipe lines from 135th Street Gate House to Gate House at Central Park Reservoir; referred to Chief Engineer for examination and report..... 168
Appointment of Committee to take into consideration question of lands to be taken in fee simple on line of..... 174
Extension of 15 days granted to Brown, Howard & Co. for completing arrangements in relation to light and ventilation in tunnels of... 176
Organization of Engineer Corps on line of; from Central Park to Croton Lake, divided into five divisions..... 179
Division of Aqueduct work and assignment of Division Engineers to same, referred to Committee on Construction..... 202
Report of Committee on Construction dividing line of Aqueduct, from Croton Lake to Central Park, into five divisions, approved.. ... 214
Secretary requested to furnish list of parties from whom lands have been purchased by private negotiations for..... 227
Communication of Chief Engineer in relation to ventilating and lighting tunnels of; referred to Counsel to the Corporation..... 231
Chief Engineer authorized to take such action as he deems proper for ventilating and lighting tunnels of..... 232
Secretary reports on lands purchased by private negotiations for..... 234
Chief Engineer reports length of Aqueduct constructed and cost of same..... 242
Secretary directed to furnish list showing names of all persons with whom negotiations are being had for the purpose of purchasing lands for..... 246
Report of Chief Engineer on progress made in lighting and ventilating tunnels of..... 261

AQUEDUCT—(Continued.) PAGE

Chief Engineer directed to advertise for proposals for necessary apparatus to provide electric lights and ventilation, where needed in tunnels of..... 262

Report of Chief Engineer on light and ventilation along line of; approved..... 268

Report of Committee on Real Estate on the taking of the fee in lieu of an easement in lands on line of; in Westchester County, 24th Ward, and on Manhattan Island section..... 286

Chief Engineer reports on meeting of various headings of tunnels of.. 290

Commissioner of Public Works submits plan of lands on line of; between 145th and 152d Streets; referred to Committee on Real Estate and Chief Engineer..... 296

Public hearing on taking the fee simple in lands on line of; between 145th Street and Convent Avenue, and 152d Street and 10th Avenue; same closed..... 309

Appropriation of $100 for models of difficult constructions in masonry at intersection of shafts and arch of..... 314

Chief Engineer reports meeting of; through open cut at Shaft 8 and north heading of Shaft 9..... 323

Commissioner of Public Works submits property maps of additional lands to be taken in fee simple in the 12th Ward of the City of New York required for; same approved and adopted and Secretary directed to transmit same to Counsel to the Corporation for filing.....327, 335

Committee on Real Estate to furnish information relative to negotiations which are being made for the purchasing of lands for..... 331

Report of Committee on Real Estate on above..... 334

Headings between Shafts Zero and 1 meet..... 334

President, Chairman of Committee on Construction and Chief Engineer to issue permits for inspecting..... 346

Report of Committee on Construction on light and ventilation in tunnels of; discussed..... 351

Opinion of Counsel to the Corporation having reference to power of Commissioners to compel Contractors to provide necessary apparatus for lighting and ventilating the tunnels of..... 372

Chief Engineer authorized to employ James T. Gardner and William McQuade to examine light and ventilation of..... 372

Chief Engineer to prepare and submit estimates and details of change of plan of; through Gould's Swamp..... 386

Chief Engineer to report increased cost of solid masonry over arch for entire line of; and as to necessity of same..... 386

Communication from C. R. Cummings, of Brown, Howard & Co., requesting that solid masonry be put in over arch of tunnel of; referred to Committee on Construction..... 387

Rossiter W. Raymond appointed as one of the experts to examine light and ventilation of..... 397

AQUEDUCT—(Continued.) PAGE
President and Chief Engineer to prepare and have published report giving complete history of the character, progress and expense of; to January 1, 1887 ..... 402
Report of Chief Engineer and experts on light and ventilation of tunnels of ..... 428

AQUEDUCT COMMISSIONERS—
Have authority to change or modify plans ..... 3
Adopt Final Plan Sheet No. 5½, Parcels 74, 75 and 76 ..... 4
Approve property maps of same ..... 17
Elect officers for 1886 ..... 28
Direct construction of Sodom Dam and Reservoir ..... 36
Award contract for Section 12 to O'Brien & Clark ..... 40
Award contract for Sections 13 and 14 to John Brunton & Co ..... 41
Fix southern terminus of Aqueduct at Central Park Reservoir .....43, 104
Communication from D. O. Bradley, requesting that surveys be made in relation to supplying cities and towns on line of old Aqueduct with water from same ..... 48
Direct Chief Engineer to order Aqueduct lined with masonry throughout its entire length ..... 57
Meet Commission of Engineers (Craven *v.* Church) ..... 74
Adopt property maps (Exhibit FF) of lands for East Branch Reservoir. 101
Adopt property maps (Exhibit II) of lands for 135th Street Gate House ..... 102
Oliver W. Barnes, Edgar L. Ridgway and Hamilton Fish, Jr., take office as ..... 114
Commissioner James C. Spencer elected President of ..... 120
President requested to report a review of work to January 1, 1886 ..... 126
Secretary directed to furnish each Commissioner with an abstract of the cost and amount of work done from commencement of work to date ..... 126
Comptroller requested to raise $2,000,000 for uses and purposes of ..... 128
Revocation of action of; in relation to increase in number and appointment of members of Committee on Construction, referred to Special Committee ..... 132
Committee on Construction to consult Counsel to Corporation with regard to power of; to order Contractors (except upon Sections A and B) to construct additional shafts ..... 137
Stated Meetings of; to be held at 2 o'clock P. M. ..... 152
Authorize Secretary and Chief Engineer to grant half-holidays on Saturdays in their respective Departments ..... 152
Office to be closed from July 3d to July 6th, 1886 ..... 160
Abstract of expenditures of; to June 30, 1886, referred to Committee of Finance and Audit ..... 169
Repeal present By-laws and adopt new By-laws and Rules of Order .. 180
Cushing's Manual to govern proceedings of ..... 181

AQUEDUCT COMMISSIONERS—(Continued.) PAGE
Approve and adopt Final Plan Sheets 5A and 5B for the taking in fee simple of additional lands at Shafts 25, 26 and 27, and upon the line of Convent Avenue..... 181–5
Meetings of; provided for in By-laws and Rules of Order..... 190
Adopt resolutions on death of Hubert O. Thompson..... 207
Adopt report of Committee on Construction on assignment of Engineer Corps..... 221–5
Secretary directed to furnish list of contracts made prior to appointment of; as required by Chapter 337, Laws of 1886..... 226
Authorize Commissioners of Accounts to make such examinations of the accounts of this Commission as they desire..... 227
President directed to request Mr. H. S. Craven, late Construction Engineer, to return all property belonging to..... 229
Secretary reports list of contracts made prior to appointment of; as required by Chapter 337, Laws of 1886..... 237
O'Brien & Clark notify; of purchase of land for shaft site between Shafts 16 and 17..... 257
Minutes of meetings of Committee on Construction to be read at regular meetings of.....260, 291
By-laws of; amended..... 269
Authorize construction of additional Shaft 15½..... 283
Authorize construction of additional Shaft 16½..... 284
Requested by Comptroller to send Board of Estimate and Apportionment an estimate of amounts required to pay expenses of conducting business of Commission for 1887. Committee of Finance and Audit to consult Counsel to the Corporation on same and advise Comptroller..... 298
Accept work done by Charles Peterson on crib-dock on westerly side of Harlem River near Shaft 25, and approve voucher for final payment on same..... 299
Accept work done by O'Brien & Clark on culvert across dumping grounds of Shaft 23, and approve voucher for final payment on same..... 300
Committee of Finance and Audit report on occupancy of Tarrytown headquarters by any member of..... 301
Committee of Finance and Audit requested to refuse to approve any bill hereafter presented for meals furnished members of..... 308
No member of; to be allowed to live in any building rented by; or to stable his horse in same..... 308
Resolution requiring minutes of Committee on Construction to be read at meetings of; rescinded..... 311
Committee of Finance and Audit estimate expenses of; for 1887, at $5,000,000..... 312
Authorize location and construction of Shaft 13½..... 313
Adopt Final Plan Sheet No. 5C, for certain lands in the 12th Ward... 316
Adopt Rules of Order..... 319

AQUEDUCT COMMISSIONERS—(Continued.) PAGE

Adopt property maps showing lands described by Final Plan Sheet 5C (additional lands to be taken in fee simple in 12th Ward of the City of New York) ..... 327, 328

Committee of Finance and Audit report that $7,000,000 will be required for expenses of; for 1887 ..... 332

Comptroller requested to raise $2,000,000 for use of ..... 33

Accept work and materials furnished by O'Brien & Clark for culvert across dumping grounds of Shaft 19, and authorize final payment for same ..... 335

Office of; to be closed on October 28, 1886, in honor of the celebration of the unveiling of the Statue of Liberty ..... 344

President and Chairman of Committee on Construction to confer with Civil Service Board with regard to rules and regulations to be established for examination of persons applying for positions under ..... 348

Approve and adopt Final Plan Sheet No. 9A, lands at Shaft Site No. 8, and request Commissioner of Public Works to submit the six similar property maps of same ..... 359-60

Approve and adopt Final Plan Sheet 3A, lands at Shaft Site 15½, and request Commissioner of Public Works to submit property maps of same ..... 361

Adopt above property maps ..... 365-6

Express their appreciation of services performed by Assistant Engineer Thomas Franklin, deceased ..... 368

Opinion of Counsel to the Corporation having reference to power of; to compel Contractors to provide necessary lighting and ventilating apparatus on their work ..... 372

Order construction of Shaft 13A ..... 376

Order suspension of work on Shaft 13½ ..... 377

Revoke appointments of Chainmen made December 1, 1886 ..... 405

Establish grade of Axeman ..... 405

Chief Engineer Church and Principal Assistant Engineer Pugsley to act as members of the Special Examining Board for examination of applicants for appointment by ..... 413

Secretary directed to report number of expert commissions appointed by; since formation of Commission ..... 415

Request Civil Service Board to hold examination for filling position of Chief Clerk in Chief Engineer's office ..... 416

Accept work done and materials furnished by Coldwell, Wilcox & Co. for iron-work for Blow-offs at Pocantico and Tibbett's Brook Gate Houses, and authorize final payment for same ..... 422

Secretary to furnish each Commissioner with a copy of all proposed amendments to By-laws ..... 427

Reconsider action of December 22d, with reference to filling vacancy of Chief Clerk in Chief Engineer's office; competition to be open to any employee of ..... 428

Secretary reports number of special or expert commissions appointed by ..... 429

ARCH— PAGE

Chief Engineer to report as to the cost and necessity of putting solid masonry over ..... 386

Communication from C. R. Cummings, of Brown, Howard & Co., requesting that solid masonry be put in over; referred to Committee on Construction ..... 387

ASSISTANT ENGINEERS—

Secretary directed to obtain original reports of Division and Assistant Engineers to Engineer of Construction, and submit same to Board of Examining Engineers ..... 111

Resignation of Alfred A. Horne as; accepted ..... 208

E. D. Johnston; dismissed ..... 220

Robert Ridgway, H. R. Wheeler, J. A. Lockwood, B. R. Value — Promoted to ..... 222

J. M. Stewart, George R. Olney — Promoted to ..... 223

A. C. Chenoweth, C. G. Douw — Promoted to ..... 224

Resignation of Robert H. Moore as; to take effect August 15, 1886; accepted ..... 225

Royal Chapin, Thomas D. Whistler, W. B. Swan — Honorably discharged ..... 233

Charles K. Gracie appointed ..... 246

Resignation of Robert H. Moore as; to take effect September 1, 1886; accepted ..... 252

William B. Swan appointed ..... 342

Appointment of Frederick W. Frost as; referred back to Committee on Construction with the request that they take in consideration the name of E. Sherman Gould for such position ..... 342

Thomas Franklin, granted indefinite leave of absence ..... 348

Recommendation of Committee on Construction in favor of the appointment of Frederick W. Frost as; referred to Special Committee.. 350

Thomas Franklin, resolutions on death of ..... 368

Committee appointed to confer with Civil Service Commission on rules and regulations for appointment of ..... 397

Report of above Committee ..... 404

ATKINS, C. W.—

Appointed Inspector of Masonry ..... 423

AUDITOR—

Resignation of J. H. Timmerman as; laid on table ..... 73

J. C. Lulley applies for position of ..... 76

Resignation of J. H. Timmerman as; accepted ..... 82

J. C. Lulley appointed ..... 82

AUDITOR—(Continued.) PAGE
Provided for in By-laws..... 191
Duties of ..... 196

AUXILIARY OFFICES—
Appropriation of $250 for; at Pocantico Cut and Blow-off..... 123
Additional appropriation of $25 for above ..... 158

AWARDS—
Of contract for culvert at Shaft 19 to O'Brien & Clark..... 9
Of contract for culvert at Shaft 20 to Heman Clark..... 9
Of contracts for Sections 12, 13 and 14 deferred..... 32
Of contract for constructing Section 12 to O'Brien & Clark... ..... 40
Of contract for constructing Sections 13 and 14 to John Brunton & Co. 41
Of contract for Shaft 19½ to Heman Clark..... ..... ... 46
Of $1,200 to Joseph P. Disbrow for damage to his house in 24th Ward ..... 98
Above award to Joseph P. Disbrow reconsidered..... .. 111
Of contract for crib-dock on westerly side of Harlem River to Charles Peterson..... ..... 174
Of contract for iron-work for waste-weir gate houses at Pocantico, Saw Mill River, and Tibbett's Brook, to Coldwell, Wilcox & Co..... 180
Of contract for Shaft 12C to O'Brien & Clark.... ..... 186
Of contract for Shaft 11C to Brown, Howard & Co..... 187
Of contract for Shaft 16½ to O'Brien & Clark..... 284

AXEMAN—
Grade of; established..... 405
Richard A. Reinisch.....
George O. Holland.....
John P. R. Taaffe.....
George J. Deitz.....
John R. Yale.....
John T. Ward.....
Edward A. Byrne.....
John E. Hayes.....
Joseph McCusker.....
H. Brown Alderson.....
William Horton..... ...
Henry Cantor..... } Appointed ..... 407

(B)

BALDWIN, C. C. (Commissioner)—
Elected member of Committee of Finance and Audit.....29, 194
Appointed on Committee to draft resolutions on death of Hubert O. Thompson..... ..... 203
Appointed on Committee to confer with Civil Service Commission on rules and regulations for the appointment of Assistant Engineers, Rodmen and Chainmen..... 397
Presents names of J. B, Francis, George S. Greene, R. K. Martin and J. J. R. Croes from which to make selection of experts on Quaker Bridge Dam.... ..... ..... 403

PAGE

BALDWIN, F. H.—
Assigned as Assistant Engineer to Third Division..... 223

BALDWIN, RICHARD, JR.—
Promoted from Chainman to Rodman..... 6
Assigned to duty on Fifth Division..... 225

BARLOW, W. H.—
Matter of loss and damage to property of; at Shaft No. 1, referred to Commissioners of Appraisal..... 252

BARNES, OLIVER W. (COMMISSIONER)—
Submits plans for curved dam at Quaker Bridge..... 81
Takes office as Aqueduct Commissioner under Chapter 337, Laws 1886 114
Appointed on Committee to prepare and present amendments to By-laws..... 119
Elected member of Committee on Construction.....120, 194
Appointed on committee to take into consideration question of lands to be taken in fee simple on line of Aqueduct..... 174
Elected member of Committee on Construction..... 277
Elected Chairman of Committee on Construction..... 280
Elected to fill vacancy on Committee on Real Estate..... 306
Appointed on committee to examine character and value of services of James W. McCulloh..... 306

BEATTIE, ARTHUR L.—
Appointed Laborer on Sixth Division..... 75
Assigned to Fifth Division..... 225

BECKERS, ALEXANDER—
Communication from; on Quaker Bridge Dam, referred to Committee on Construction..... 429

BELMONT, AUGUST (PREST. AM. JOCKEY CLUB)—
Remonstrates against taking of lands in Jerome Park for Reservoir... 88

BIDS—(SEE ALSO "PROPOSALS")—
Received for constructiug Sections 12, 13 and 14..... 24
Same referred to Committee of Finance and Audit for examination .. 25
Committee of Finance and Audit report on same..... 31
Secretary and Chief Engineer present tabulated statement of same... 32
Making of award deferred..... 32
Information in relation to sureties to be furnished by January 28, 1886. 32
Contract for construction of Section 12 awarded to O'Brien & Clark.. 40
Contract for construction of Sections 13 and 14 awarded to John Brunton & Co..... 41
Committee on Construction authorized to advertise for; for iron-work of Saw Mill Waste Weir Gate House..... 158
Action of Secretary in advertising for; for construction of Section 15, approved..... 420

BILLS— PAGE

Copies of all Bills presented to Senate and Assembly, Session 1885–1886, to be furnished for $50 by James H. Caulfield..... 20

Communication from William Russell concerning his bills, referred to Committee of Finance and Audit..... 125

Of John Townshend for services in opening Shaft 18¼, referred to Committee of Finance and Audit..... 337

Secretary to arrange with James H. Caulfield for furnishing bills presented to Senate and Assembly, Session 1886–1887, for $50..... 378

BISHOP, DAVID W.—

President and Vice-President to execute lease of "first flat" 269 W. 125th Street for two years from May 1, 1886, $420 per year, with. 80

BLISS, REV. JOHN C.—

Protests against Sunday work on the Aqueduct..... 336

BLOW-OFFS—

Agreement to be made with Coldwell, Wilcox & Co. for iron-work for; at Pocantico, Saw Mill River and Tibbitt's Brook..... 180

President authorized to execute above agreement..... 347

Committee of Finance and Audit report progress on matter of allowing 50 per cent. payment on above..... 364

Above 50 per cent. payment authorized..... 370

Matter of acceptance of work furnished by Coldwell, Wilcox & Co. for iron-work for, etc., at Pocantico and Tibbitt's Brook, referred to Committee of Finance and Audit..... 411

Above work accepted and final payment authorized..... 422

BOARD OF EDUCATION, CITY OF YONKERS—

Request that explosives in said city be removed, referred to Chief Engineer to confer with contractors O'Brien & Clark, and action... 88

BOARD OF ESTIMATE AND APPORTIONMENT—

Secretary directed to submit to said Board agreement with Jeremiah Mahony for land at Pocontico Cut and Blow-off for $2,000 for approval..... 44

Approve above agreement..... 52

Notice of revocation by said Board of approval of agreement between Aqueduct Commissioners and N. Y. Life Ins. Co. for lands in Town of Greenburg, referred to Committee of Finance and Audit..... 87

Secretary directed to transmit copy of report in relation to lands of N. Y. Life Ins. Co. at Ardsley, to..... 100

BOARD OF EXPERTS (QUAKER BRIDGE DAM AND RESERVOIR)—

Committee on Construction recommend appointment of; to consider and report on necessity of constructing the Quaker Bridge Dam, and on plans for same..... 392

Commissioner Baldwin presents names of J. B. Francis, George S. Greene, R. K. Martin and J. J. R. Croes from which to select.... 403

Reconsideration of action taken with reference to employing; laid over..... 416

BOARD OF STREET OPENINGS— PAGE
Secretary to confer with; with regard to opening Convent Avenue from 137th to 145th Street..... 164

BOND—
Form of contract, specifications and bond for construction of Sections 12, 13 and 14, submitted by Commissioner of Public Works..... 1
Same approved and adopted..... 2

BONNETT, CHARLES P.—
Promoted from Rodman to Leveler..... 6
Chief Engineer reports his suspension from Jerome Park Reservoir Survey and assignment to duty elsewhere..... 151
Reduced from Leveler to Rodman and assigned to Third Division.... 223

BOOKKEEPER (CHARLES J. FEBRE)—
Request of; for increase of salary from $1,500 to $1,800 per annum, referred to Committee of Finance and Audit..... 429

BORINGS—
Near Shaft 13; Chief Engineer to complete as soon as possible..... 281

BOWLEY, HENRY H.—
Honorably discharged as Transitman..... 233
Appointed Inspector of Masonry..... 339

BOYLE, JOHN—
Appointed Inspector of Masonry..... 388

BRADLEY, D. O.—
Requests Aqueduct Commissioners to cause surveys to be made in relation to supplying cities and towns on route of old Aqueduct with water from same..... 48

BREVOORT, BENJAMIN H.—
Appointed Inspector of Masonry..... 388

BRICK—
Chief Engineer to examine brick delivered on Sections 4 and 5 for arch of tunnel and report whether they are unsatisfactory; if so, to require contractors to remove same and furnish brick strictly conforming to contract..... 138
Chief Engineer reports on brick used on Sections 4 and 5..... 145
Chief Engineer authorized to detail inspectors to examine brick at yards..... 188

BRICKWORK—
Chief Engineer directed to report what is necessary to be done to correct defects in; in tunnel north and south of open cut on Section 4. 138

BROWN, HOWARD & CO. (CONTRACTORS)— PAGE
Give notice that they will hold Aqueduct Commissioners responsible for delay in payment of monthly estimates for April... ..... 124
Granted 15 days time in which to complete arrangements for light and ventilation in the tunnels..... 176
Contract for Shaft 11C awarded to..... ..... 187
Give notice that they will hold the City responsible for delay in payment of monthly estimates on Sections 2 to 5..... ..... 208
Complain regarding delay in payment of estimates ..... ..... 251
Orders of Chief Engineer directing; to place electric lights and power blowers on their work to be enforced..... 365
Given five days from November 30th in which to discontinue use of gasoline torches on their work ..... 383
Execution of contract for Shaft 11C by sureties of; waived..... 384
Communication from C. R. Cummings of; requesting that solid masonry be put in over arch of tunnel; referred to Committee on Construction..... ..... 387

BRUNTON, JOHN & CO.—
Contract for constructing Sections 13 and 14 of new Aqueduct awarded to ..... ..... 41
Contract for constructing Sections 13 and 14 of new Aqueduct ordered to be executed with..... ..... .... 46
Authorized to construct temporary sewer around Shaft 29; cost not to exceed $600. ..... 84
Orders of Chief Engineer directing; to place electric lights and power blowers on their work to be enforced..... 365
Letter from; having reference to placing lighting and ventilating apparatus on their work ..... ... .. ... .. 372
Notify Commissioners that they have contracted for a Brush electric light plant for their work..... 378
Granted five days from November 30th to discontinue use of gasoline torches on their work..... ..... ..... 383

BUCKLEY, EDWARD B.—
Resignation as Clerk accepted..... ..... 131

BURBANK, GEO. B.—
Assigned as Assistant Engineer to First Division. ..... 222

BURLEIGH ROCK DRILL CO.—
Notice of lien for $1,130 filed by; against Section 8..... ..... 290

BYRNE, EDWARD A.—
Appointed Chainman..... 382
Above appointment revoked..... ... ..... 405
Appointed Axeman..... ..... 407

BY-LAWS—
Committee on Construction to prepare and submit by-laws governing Special Assistant Engineer to be detailed to aid Counsel to the Corporation in matter of adjustment of claims..... 58

BY-LAWS—(Continued.) PAGE
Article III. amended by providing that Committee on Construction consist of five members..... 119
Commissioners Spencer, Dowd and Baldwin appointed a committee to prepare and present amendments to..... 119
Report of above Committee..... 180
Present By-laws repealed and new By-laws adopted..... ...181, 190
Amended..... 269
Secretary directed to record, as amended..... 273
When any By-law may be repealed, amended or suspended..... 323
Resolution repealing Section 4 of Article III. of; laid over ..... 362
Proposed amendment of Section 4 of Article III. of; laid over..... 363
Proposed amendment to; relating to Committee on Construction, laid over..... 414
Commissioner Fish presents amendment to Section 1, Article II., of; laid over ..... 417
Proposed amendment to; relating to division of Aqueduct work, laid over..... 424
Secretary directed to furnish each Commissioner with a copy of all proposed amendments to..... 427

(C)

CANTOR, HENRY—
Appointed Chainman..... 382
Above appointment revoked..... 405
Appointed Axeman..... 407

CARPENTER, FREDERICK W.—
Promoted from Chainman to Rodman..... 6
Assigned to Fourth Division..... 224

CARR, ADDIS E.—
Honorably discharged as Chainman..... 233

CAULFIELD, JAMES H.—
Copies of all bills presented in Senate and Assembly, Session 1885-1886, to be furnished for $50 by ..... 20
Secretary to arrange with; for furnishing bills presented in Senate and Assembly, Session 1886-1887, for $50..... 378

CAVE-IN—
Chief Engineer instructed to confer with Corporation Counsel in relation to cave-in on lands of Cyrus W. Field, south of Shaft 13..... 64
Agreement to be made with O'Brien & Clark for work at..... 68
Secretary directed to have above agreement executed..... 80

CEMENTS—
Chief Engineer directed to report on..... 125
port of Chief Engineer on..... 144
plemental report of Chief Engineer on..... 151

CEMENTS—(Continued.) PAGE

Communication from Chief Engineer with regard to cement used in foundation concrete in open cut at Shaft 18, referred to Committee of Finance and Audit..... 383

Communication from Chief Engineer in relation to..... 423

CENTRAL PARK GATE HOUSE—

Commissioner of Public Works requested to submit plans, etc., for a conduit or pipe lines from 135th Street Gate House to.....43, 104

Commissioner of Public Works requested to report plans for..... 155

Commissioner of Public Works submits plans, maps, etc., for a conduit or pipe lines between 135th Street Gate House and; same referred to Chief Engineer for examination and report..... 168

Communication from Commissioner of Public Works in relation to laying the necessary mains between 135th Street Gate House and; referred to Committee on Construction..... 266

Report of Committee on Construction on above..... 282

CENTRAL PARK RESERVOIR—

Southern terminus of new Aqueduct fixed at.....43, 104

CHAINMAN—

James McCarty..... } Promoted from Laborers to ..... 6
James Walstead..... }

Resignation of Charles W. Perry as..... 175

Matter of appointment of Maurice A. Viele, Charles B. Nooney and J. N. H. Cornell as; referred to Committee on Construction ..... 209

Maurice A. Viele..... }
Charles B. Nooney..... } Appointed ..... 217
J. N. H. Cornell..... }

Joseph Ryan..... }
Sarsfield Kennedy..... } Appointed ..... 220
Robert Dewitt..... }
Cornelius J. Lynch..... }

Duncan McRae Livingston promoted to ..... 223

G. C. Marrin..... } Reduced from Rodman to..... 223
Lincoln Frank..... }

C. E. Richards reduced from Rodman to..... 224

Gustave Cure..... }
Addis E. Carr..... } Honorably discharged ..... 233
John P. R. Taaffe..... }

Richard A. Reinisch..... }
Edward A. Byrne..... }
W. Mitchell..... }
John E. Hayes..... }
George J. Deitz..... } Appointed..... 382
H. Brown Alderson..... }
John R. Yale..... }
William Horton..... }
Henry Cantor..... }

CHAINMAN—(Continued.) PAGE
Above appointments revoked..... 405
Joseph T. Underhill..... } Resigned..... 389
Charles B. Nooney..... }
Joseph C. Ryan..... }
Committee appointed to confer with Civil Service Commission on rules and regulations for appointment of..... 397
Report of above Committee..... 404

CHAPIN, ROYAL—
Honorably discharged as Assistant Engineer..... 233
Matter of back pay to; referred to Committee on Construction..... 259
To be allowed back pay to August 6, 1886..... 265

CHARGES—
Against the efficiency of the Chief Engineer and of imperfect work on the new Aqueduct..... 65
Commission of Engineers consisting of John Newton, George S. Greene and Q. A. Gillmore appointed to investigate same..... 68
Report of above Commission of Engineers received and filed..... 177
2,500 copies of above report ordered printed..... 218

CHENOWETH, A. C.—
Requests that he be given charge of work on new Aqueduct south of 135th Street; referred to Committee on Construction..... 73
Promoted from Transitman to Assistant Engineer and assigned to Fifth Division..... 224

CHIEF ENGINEER—
Report on matters of allowance for timber section in Aqueduct tunnels; laid over..... 5
Report on cost per mile for lining sides and roof of Aqueduct; laid over..... 7
Directed to make thorough examination, and give all necessary orders for prevention of accidents..... 8
To consult Corporation Counsel on legal questions involved in method of timbering in Aqueduct tunnels, and allowances asked for by contractors..... 17
Chief Engineer and Secretary present tabulated statement of bids received for Sections 12, 13 and 14..... 32
Communication from Chief Engineer in relation to lining Aqueduct at Shafts 5 and 9..... 42
Chief Engineer and Secretary to prepare and submit to Corporation Counsel for approval, specifications and agreements for sinking Shaft 19½ with Heman Clark..... 46
Recommends that pay of Division Engineers be increased; action deferred..... 53
Directed to place work on Division 7 (Sections 12, 13 and 14) in charge of Edward Wegmann, Jr., Division Engineer..... 56

CHIEF ENGINEER—(Continued.) PAGE

Reports on condition of shafts and appliances used for safe performance of work, and his orders to improve same..... 57

Directed to order new Aqueduct lined with masonry throughout its entire length..... 57

To be governed by opinion of Corporation Counsel in relation to changes in method of timbering in tunnels, and allowances asked for by contractors..... 58

Chief Engineer and Secretary directed to confer with Counsel to Corporation in relation to seeming defect in property maps of Aqueduct through Convent Avenue; and amended maps (137th-145th Streets)..... 61

Chief Engineer and Secretary authorized to obtain from Departments of City permits for doing work on new Aqueduct in city limits .. 61

Directed to confer with Counsel to Corporation in relation to cave-in on lands of C. W. Field south of Shaft 13, and report..... 64

Engineer of Construction Craven makes charges against ..... 65

Commissioners Loew and Baldwin requested to present names of Engineers to act as Investigating Committee ..... 66

Communication from H. S. Craven referred to said Committee..... 66

Communication from E. E. Glaskin reviewing report of Chief Engineer on Quaker Bridge Dam referred to..... 66

Commission of Engineers appointed to investigate charges made against; by Engineer of Construction Craven..... 68

Reconsideration of resolutions appointing Commission of Engineers to investigate charges made against; and amended resolution adopted ..... 77

Communications from Chief Engineer and H. S. Craven referred to said Committee, with request that they fully examine charges made with regard to engineering work on new Aqueduct..... 86

Request from Board of Education (City of Yonkers) that explosives in said city be removed; referred to Chief Engineer for conference with contractors O'Brien & Clark, and action..... 88

Chief Engineer and Secretary to submit forms of agreement and specifications for sinking Shaft 21½ on Section A..... 91

Request from counsel of Mrs. J. A. Sanford that parcel of land belonging to her on dumping grounds of Shaft 19 be taken by Commissioners, referred to..... 94

Exhibit FF (map of land on east branch of Croton River) and communication from Commissioner of Public Works relative to same, referred to..... 96

Exhibit II (map of land for new Gate House at 135th Street) and communication from Commissioner of Public Works relative to same, referred to..... 96

Presents statement of estimates for work done by contractors during April, 1886..... 106

Reports in relation to parcel of land belonging to Mrs. J. A. Sanford at Shaft 19; action deferred..... 106

CHIEF ENGINEER—(Continued.) PAGE

Directed to enforce performance of work described in report of Division Engineer on investigation of complaint of Madame Hoey of the Convent of the Sacred Heart..... 107

To rent office near High Bridge; and have built temporary offices at 149th Street and Convent Avenue..... 110

Plans and estimates of Commissioner of Public Works relative to new Gate House at 135th Street, referred to ..... 110

To have surveys, maps and plans made, showing modification to be made in location of Aqueduct at Shaft 8..... 112

To employ Laborer for Division No. 2 ..... 123

To report upon cement..... 125

Chief Engineer and Secretary to furnish Corporation Counsel required maps and information to enable him to take steps to amend proceedings in relation to lands of J. P. Disbrow..... 129

To contract with Tenth Avenue Cable Road for transportation of Seventh Division Engineers..... 130

Request of O'Brien & Clark for authority to sink additional shafts between Shafts 13 and 14, 15 and 16; referred to..... 131

Directed to examine bricks delivered on Sections 4 and 5, for arch of tunnel, and report whether they are unsatisfactory; if so, to require contractors to remove the same and furnish bricks strictly conforming to contract..... 138

Directed to investigate and report whether requirements of Section 29 of Contract, respecting light and ventilation, are complied with by all contractors; and hereafter to require contractors to comply with same..... 138

Requested to report what is necessary to be done to correct defects in brickwork in tunnel north and south of open cut on Section 4.... 138

Requested to report upon surveys and soundings of proposed Jerome Park Reservoir; also Quaker Bridge Reservoir; and whether Engineer Corps engaged thereon cannot be disbanded..... 140

Reports on cements used on new Aqueduct; action deferred..... 144

Reports with regard to proposed change of line of Aqueduct at Shaft Site No. 8; recommends that the straight line be adhered to.... 144

Reports on bricks used on Sections 4 and 5..... 145

Reports on fee and easement in lands upon line of Aqueduct; referred to Committee on Construction..... 145

Report in relation to the surveys of, and the Engineer Corps upon, the Jerome Park and Quaker Bridge Dam Reservoirs..... 145

Reports suspension of Engineer Corps and Laborers engaged on survey of Jerome Park Reservoir; and his assignment to duty elsewhere of Assistant Engineer Swan, Leveler Bonnett and Rodman Rathborne ..... 151

Reports concerning past observance of requirements of contracts by contractors in relation to light and ventilation in tunnels..... 151

Reports on cements used on the Aqueduct, supplemental to that of June 5th..... 151

CHIEF ENGINEER—(Continued.) PAGE
Request of Mr. James O'Friel for an examination of a new material for arches, etc., for lining of Aqueduct, referred to ..... 152
Authorized to grant half-holiday on Saturdays in his department. ... 152
Plans for iron-work of Saw Mill River Waste Weir Gate House, referred to; with power to advertise for bids for same..... 158
Exhibit MM; maps, plans, etc., for conduit or pipe lines between Gate Houses at 135th Street, and at new Reservoir in Central Park, referred to; for examination and report..... ..... 168
Given authority to employ a temporary Helper for work on Diamond Rock Drill..... 175
Authorized to detail Inspectors to examine brick at yards and stone at quarries..... ..... ..... . 188
Provided for in By-laws..... 192
Duties and powers of, defined in By-laws..... ..... 197
Directed to report on suspension of force at work on Jerome Park Reservoir..... ..... 206
James W. McCulloh employed as Special Assistant to; at $6,000 per annum ..... ..... 211
To notify Engineers of the districts to which they have been assigned .. ..... 229
Communication of; in relation to ventilating and lighting the tunnels of the Aqueduct, referred to the Counsel to the Corporation for his opinion ..... ..... 231
Authorized to take such steps as he deems proper in relation to ventilating and lighting the Aqueduct tunnels... ..... 232
Request of; that the services of E. D. Johnson, Assistant Engineer, be retained until September 1st, not granted..... . ..... 233
Reports length of Aqueduct constructed and cost of same..... 242
Submits communication on construction of Quaker Bridge Dam and Reservoir..... ..... ... 245
Opinion of Counsel to the Corporation regarding power of; to provide adequate light and ventilation..... 251
Authorized to employ five or six Laborers for purpose of completing soundings and test pits at Sodom Dam ..... 253
Appointed on Committee to confer with Civil Service Commission ... 253
Report of; on progress made in the lighting and ventilation of the Aqueduct tunnels..... ..... 261
Directed to advertise for proposals for necessary apparatus to provide electric lights and ventilation of the Aqueduct tunnels where needed..... 262
Authorized to call Mr. A. Fteley, Consulting Engineer, to active duty..... ..... 265
Recommends that City Paymaster pay members of Engineer Corps in bank bills instead of checks; referred to Committee of Finance and Audit..... 267
Reports on light and ventilation along line of Aqueduct ..... 268
Provided for in amended By-laws..... 270

CHIEF ENGINEER—(Continued.) PAGE
To complete borings near Shaft 13 as soon as possible..... 281
To proceed immediately with laying mains between 135th Street Gate House and Central Park Reservoir..... 282
Reports that additional shafts are required between Shafts 13 and 14, 15 and 16 and 16 and 17, to be known as Shafts 13½, 15½ and 16½. 282
Directed to have lands for Shaft 15½ and dumping grounds mapped.. 283
Communication from Mayor of Yonkers in relation to removal of culvert in said city, referred to; with power..... 290
Reports meeting of various tunnel headings..... 290
Directed to have monthly estimates of contractors made up to and including last day of each month..... 290
Plan of lands on line of Aqueduct between 145th and 152d Streets submitted by Commissioner of Public Works, referred to Committee on Real Estate and..... 296
Communication from Thomas Faye in relation to blasting at St. Nicholas Avenue and 152d Street, referred to..... 297
Communication from; read and ordered filed with Committee on Construction..... 315
Reports meeting of lines through open cut at Shaft 8 and north heading of Shaft 9..... 323
To advertise for proposals for furnishing coal for Engineers' offices and to purchase from lowest bidder..... 326
Directed to send copies of working drawings and plans to Columbia College School of Mines..... 330
Protest of Rev. John C. Bliss against Sunday work on the Aqueduct, referred to..... 336
To report cause of accidents at Shafts 16 and 17, and what precautions should be taken to prevent accidents on the line..... 337
To invite Engineers, etc., from France to the celebration of the unveiling of the Statue of Liberty, to examine plans and work on new Aqueduct..... 342
Authorized to issue permits to inspect the Aqueduct..... 346
Exonerated from all blame in regard to first charge by Mr. Craven against..... 350
Reports in regard to accidents and their cause at Shafts 16 and 27... 365
Orders of; directing Brown, Howard & Co. and John Brunton & Co. to place electric light and power blowers on their work, to be enforced..... 365
Authorized to employ James T. Gardner and William McQuale to examine light and ventilation in Aqueduct tunnels..... 372
Resolution authorizing; to issue orders to Engineers and Contractors to prohibit use of gasoline, lost..... 373
To report on light and ventilation..... 374
To issue orders prohibiting use of gasoline, if advised by Counsel to the Corporation that Commissioners have that power..... 378
To transmit to Committee on Construction copies of all weekly or other reports made by Principal Assistant Engineers..... 380

CHIEF ENGINEER—(Continued.) PAGE

To make application to Commissioners in open session for employees needed in Engineer Corps ..... 382

Communication from; with regard to cement used in foundation concrete in open cut at Shaft 18, referred to Committee of Finance and Audit..... 383

Request of; for an appropriation of $498 for land maps of lands for right of way between Croton Dam and Harlem River, referred to Committee of Finance and Audit..... 383

Reports completion of Shaft 11C..... 384

Report of Commissioner of Public Works upon necessity of constructing certain sewers simultaneously with the laying of the pipe lines from 135th Street Gate House to Central Park Reservoir, referred to Engineers Birdsall and Loomis of the Department of Public Works and..... 385

Recommendation of; that Inspectors be paid for overtime, referred to Committee of Finance and Audit..... 385

To prepare and submit estimates and details of change of plans of Aqueduct through Gould's Swamp..... 386

To report names of Tunnel Inspectors who are now employed on work of Contractors, in whose employ they formerly were..... 386

To report increased cost of solid masonry for entire line of Aqueduct; also as to necessity of putting solid masonry over the arch of tunnel..... 386

Communication from Counsel to Corporation regarding proof of advertisement for Shafts 8 and 15½ referred to; to report to Committee on Real Estate ..... 401

Recommends that two Assistant Engineers and two Rodmen be assigned to the Principal Assistant Engineers, and that an additional Topographical Draughtsman be allowed him for mapping out Croton River surveys; referred to Committee on Construction... 401

Recommends that where members of the Engineer Corps have not taken their vacations, that the same be allowed the following year; referred to Committee on Construction..... 402

And President to prepare and have published a report giving a complete history of the character, progress and expense of the new Croton Aqueduct to January 1, 1887..... 402

Certifies completion of work under contract with Coldwell, Wilcox & Co., for furnishing iron-work for waste weirs at Pocantico and Tibbitt's Brook..... 411

And Principal Assistant Engineer Pugsley to act as members of the Special Examining Board for examination of applicants for appointment by Aqueduct Commissioners..... 413

Reports burning of Hoist House and Compressor Room at Shaft 21... 414

Directed to examine highway at Pocantico Open Cut and place same in proper condition ..... 415

Civil Service Board requested to hold examination for purpose of filling position of Chief Clerk in office of..... 416

CHIEF ENGINEER—(Continued.) PAGE
Communication from; in relation to cement..... 423
Commissioners reconsider action of December 22d, in reference to filling vacancy of Chief Clerk in office of; same to be open to any employee of Aqueduct Commissioners..... 428
Submits report on light and ventilation of Aqueduct tunnels..... 428

CHRYSTAL, JAMES J.—
Assigned as chainman to Fifth Division..... 225

CIVIL SERVICE—
Corporation Counsel to be directed to appeal from decision in relation to jurisdiction of Civil Service Rules and Regulations..... 5
Secretary directed to prepare and submit to Committee of Finance and Audit a list of names, residences, compensation and date of appointment of employees of Aqueduct Commissioners for transmission to..... 19
Corporation Counsel requested to appeal from decision of Judge Lawrence in relation to jurisdiction of Civil Service law over employees of the Aqueduct Commissioners..... 19
Communication from; enclosing decision of Judge Lawrence with regard to the examination of appointees of the Aqueduct Commissioners; Secretary directed to ascertain whether the Counsel to Corporation requires further instructions before carrying case to the Court of Appeals..... 176
Counsel to Corporation gives notice that appeal has been made in matter of..... 242
Committee consisting of President, Vice-President and Chief Engineer to confer with Civil Service Commission..... 253
Counsel to Corporation requested to give his opinion as to whether the office of Secretary of the Committee on Real Estate is not subject to rules of..... 337
Opinion of Counsel to Corporation in relation to above..... 343
President and Chairman of Committee on Construction to confer with Civil Service Board with regard to rules and regulations to be established for examination of persons applying for positions under Aqueduct Commissioners..... 348
President directed to call special meeting if report is received from; with eligible list of Inspectors of Masonry..... 387
Commissioners Newton, Baldwin and Fish appointed a committee to confer with; on rules and regulations for appointment of Assistant Engineers, Rodmen and Chainmen..... 397
Report of above committee..... 404
William D. Kelly, Jr., and E. F. Playle certified to; for examination for promotion to Assistant Engineers..... 406
M. A. Viele certified to; for examination for promotion to Rodman... 406
Requested to hold examination for purpose of filling position of Chief Clerk in Chief Engineer's office..... 416

CIVIL SERVICE—(Continued.) PAGE
Above action reconsidered; and competition to be open to any employee of Aqueduct Commissioners..... 428

CLAIMS—
Matter of claim of Joseph P. Disbrow for easement upon his lands, etc.; action deferred..... 91
Report of Committee of Finance and Audit in relation to claim of Joseph P. Disbrow..... 98
Award of $1,200 on above..... 98
Secretary directed to confer with Counsel to Corporation in regard to claim of Joseph P. Disbrow..... 107
Action awarding Joseph P. Disbrow $1,200 on his claim, reconsidered. 111
Of Joseph P. Disbrow, referred to Commissioners of Appraisal..... 112
Communication from counsel for Joseph P. Disbrow in regard to his claim; ordered transmitted to Counsel to the Corporation for his advice in the premises..... 118
Of Thomas L. Ogden for $389.50, referred to Committee of Finance and Audit..... 159
Of Royal Chapin, Assistant Engineer, for back pay, referred to Committee on Construction..... 259
Above allowed to August 6, 1886 ..... 265
Of Charles Peterson for $701.03 for expense of removing rock under Harlem River; referred to Committee on Construction..... 326
Of Joseph Ryan for half pay from August 22 to November 1, 1886; allowed..... 371

CLARK, FRANK E.—
Dismissed as Inspector of Masonry..... 253

CLARK, HEMAN—
Awarded contract for constructing culvert upon dumping grounds of Shaft 20 ..... 9
Secretary to prepare agreement, etc., for above..... 9
President and Vice-President authorized to execute above..... 12
Chief Engineer and Secretary to prepare and submit to Counsel to Corporation, for approval, specifications and agreement with; for sinking Shaft 19½... ..... 46
Authorized to sink Shaft 21½ on Section A..... 91
Authorized to sink an inclined shaft on Section B ..... 123
Gives notice that he will hold the Commissioners responsible for delay in payment of monthly estimates for April..... 124
Gives notice that he will hold the City liable for damages arising from delay in payment of monthly estimates.. .....152, 158
Work on culvert upon dumping grounds of Shaft 20, done by; accepted, and final payment authorized ..... 266
Final estimate for above approved..... 294
Sub-estimate in favor of; for Shaft 19½, approved ..... 294
Complains of delay in payment of his estimates..... 297
Notice of lien filed by the Repauno Chemical Co. against; for $705.88 for materials furnished for Sections A and B... ..... 330

CLERICAL FORCE— PAGE

Secretary directed to report whether any members of; are performing private services for any Commissioner..... 292

Report of Secretary on above..... 298

CLERK—

Edward B. Buckley, resignation accepted..... 131

COAL—

Chief Engineer to advertise for proposals for furnishing; for Engineers' offices, and purchase same from lowest bidder..... 326

Purveyor directed to purchase; for Engineers' offices..... 334

COLDWELL, WILCOX & CO.—

Agreement to be made with; for iron-work required for the Waste Weir Gate Houses at Pocantico, Saw Mill River and Tibbitt's Brook, for $2,333..... 180

President authorized to execute above agreement..... 347

Committee of Finance and Audit report progress on matter of allowance of 50 per cent. payment on their contract for iron-work.... 364

Committee of Finance and Audit report recommending payment to; of 50 per cent. payment on their contract for iron-work for Gate Houses at Pocantico, Saw Mill River and Tibbett's Brook, adopted..... 370

Matter of acceptance of work done and materials furnished by; for iron-work, etc., for Blow-offs and Waste Weirs at Pocantico and Tibbitt's Brook, referred to Committee of Finance and Audit ... 411

Report of Committee of Finance and Audit on above. Work accepted and final payment authorized..... 422

COLUMBIA COLLEGE SCHOOL OF MINES—

Chief Engineer directed to send copies of working drawings and plans to..... 330

COMMISSION OF ENGINEERS—

John Newton, Geo. S. Greene and Q. A. Gillmore appointed; to investigate charges made against efficiency of Chief Engineer and of imperfect work on new Aqueduct ..... 68

Secretary directed to prepare and present detailed specifications on charges to be investigated, with list of witnesses, and all records relative to same to..... 77

Reconsideration of resolution appointing Commission of Engineers to investigate above charges and amended resolution adopted..... 77

Secretary authorized to employ stenographer to take testimony before..... 78

Communications from Chief Engineer and H. S. Craven referred to; with request that full examination be made in regard to engineering work on new Aqueduct ..... 86

Secretary directed to notify Examining Engineers that counsel would be furnished them whenever requested..... 96

COMMISSION OF ENGINEERS—(Continued.) PAGE

Secretary directed to obtain original reports of Division and Assistant Engineers to Engineer of Construction, and submit same to..... 111

Appropriation of $2,000 for payment of expenses and Stenographer reporting proceedings of..... 115

Report of; on charges made against efficiency of Chief Engineer and imperfect work on the new Aqueduct received and filed..... 177

Accounts of; referred to Committee of Finance and Audit..... 187

Secretary directed to have 2,500 copies of report of; in relation to charges preferred by Mr. Craven against Chief Engineer Church, printed..... 218

COMMISSIONER OF PUBLIC WORKS—

Submits forms of contract, specifications and bond, for constructing Sections 12, 13 and 14..... 1

Same approved and adopted..... 2

Requested to furnish additional plans and maps for construction of Sodom Dam and Reservoir..... 16

Presents plans and specifications for Sodom Dam and Reservoir..... 26

Requested to prepare and submit additional maps and plans for construction of Sodom Dam and Reservoir; also the six similar property maps for same..... 37

Requested to prepare and submit plans, maps, etc., for Gate House near 135th Street and Convent Avenue, and one at Central Park Reservoir; also for conduit between said Gate Houses..... 43

Presents communication and Exhibit FF (map of lands on east branch of Croton River) and Exhibit II (map of lands for new Gate House at 135th Street)..... 96

Requested to prepare and submit plans, maps, etc., for Gate House at 135th Street and Convent Avenue, and one at Central Park Reservoir; also for conduit or pipe line between said Gate Houses..... 104

Plans and estimates of new Gate House at 135th Street referred to Chief Engineer for examination and report..... 110

Secretary directed to make application to; for permission to string telephone wire on poles of old Croton Aqueduct from High Bridge to South Yonkers..... 118

Elected member of Committee on Construction.....29, 120, 194

Communication from; in relation to reduction of Engineer Corps and saving of expense in that Department; also in office of Secretary; part relating to Engineer Corps referred to Committee on Construction; part relating to office of Secretary referred to Committee of Finance and Audit..... 139

Submits plan modifying plans heretofore adopted, including additional lands at or near Shafts 25, 26 and 27, and upon line of Convent Avenue..... 150

Requested to report plans for Aqueduct from 135th Street to Central Park Reservoir, and for Gate House on north side of said reservoir..... 155

COMMISSIONER OF PUBLIC WORKS—(Continued.) PAGE

Deems it not advisable to submit above plans unless the work is done under the supervision of the Department of Public Works..... 156

Submits maps, plans, estimates and specifications for conduit or pipe lines between 135th Street and Central Park Gate Houses; referred to Chief Engineer for examination and report..... 168

Appointed on Committee to take into consideration the question of lands to be taken in fee simple on line of Aqueduct..... 174

Submits authenticated plans (5A and 5B) for the taking in fee simple of additional lands at and near Shafts 25, 26 and 27, and upon the line of Convent Avenue.....156, 181

Also submits property maps for above.....156, 181

Appointed on Committee to draft resolutions on death of Hubert O. Thompson..... 203

Submits map of property required for Double Reservoir I (Exhibit FF) showing proposed changes in highways bordering on said reservoir; the change in the location of the New York and New England Railroad, and the taking in fee of Parcels 80 and 81..... 249

Communication from; in relation to laying the necessary mains between 135th Street Gate House and Central Park Reservoir, referred to Committee on Construction..... 266

Requested to submit plan showing lands to be taken in fee between 145th Street and Convent Avenue and 152d Street and Tenth Avenue..... 268

Elected member of Committee on Construction..... 277

Submits plan of lands on line of Aqueduct between 145th and 152d Streets; referred to Chief Engineer and Committee on Real Estate..... 296

To prepare and submit six similar property maps showing lands described by Final Plan Sheet No. 5C (additional lands to be taken in fee simple in 12th Ward of the City of New York)..... 317

Submits above property maps as requested.....327, 335

Requested to submit property maps of lands required at Shaft Site No. 8..... 360

Requested to submit property maps of lands required at Shaft Site No. 15½..... 361

Submits the above property maps of lands at Shaft Sites 8 and 15½... 365

Reports upon necessity of constructing certain sewers simultaneously with the laying of eight lines of 4-foot pipes for the Gate House at 135th Street, and to the Central Park Reservoir, referred to Chief Engineers Church and Birdsall, and Engineer Loomis, for consideration and report..... 385

COMMISSIONERS OF ACCOUNTS—

Secretary to obtain opinion of Counsel to the Corporation in relation to jurisdiction of; over reports of Engineers of Aqueduct Commissioners and contractors on new Aqueduct on accidents..... 49

Opinion of Counsel to the Corporation adverse to jurisdiction asserted in relation to accidents on work on new Aqueduct by..... 53

COMMISSIONERS OF ACCOUNTS—(Continued.) PAGE
Secretary to transmit copy of same to..... 53
Communication from; in relation to accidents..... 57
Authorized to make such examinations of the accounts of the Aqueduct Commissioners as they may desire..... 227

COMMISSIONERS OF APPRAISAL—
Warrants for New York County, $8,550..... 7
Warrants for New York County, $4,896..... 18
Warrants for Westchester County, $4,013.97..... 18
Chief Engineer directed to furnish maps and drawings for Commissioners of Appraisal for Westchester County..... 18
Warrants for New York County, $1,527.61..... 30
Warrants for New York County, $521.78..... 48
Property Maps 4, 5 and 6, covering Parcels 74 to 76½, delivered to... 54
Warrants for New York County, $10,450.42..... 56
Warrants for Westchester County, $653.79..... 56
Warrant for Westchester County, $384.20..... 61
Secretary directed to furnish details of agreement made by Aqueduct Commissioners with owners of lands on new Aqueduct, and nature of rights acquired by City under same, to Commissioners of Appraisal for Westchester County..... 61
Reconsideration of resolution detailing Special Assistant Engineer to aid Counsel to Corporation before Commissioners of Appraisal, referred to Committee of Finance and Audit..... 62
Warrants for Westchester County, $669.64..... 72
Warrants for New York County, $262.50..... 72
Warrants for New York County, $450..... 76
Warrants for Westchester County, $487.79..... 76
Warrants for New York County, $2,250..... 81
Secretary directed to confer with Corporation Counsel in relation to evidence to be given in cases pending before Commissioners of Appraisal for Westchester County..... 88
Warrant for New York County, $1,000..... 92
Secretary reports that he has conferred with Corporation Counsel in relation to furnishing witnesses before Commissioners of Appraisal for Westchester County..... 92
Warrant for New York County, $234.90..... 96
Warrant for Westchester County, $185.17..... 96
Warrants for New York County, $2,354.85..... 106
Warrant for lands taken from J. M. McLean, $220.23.....
Warrant for lands taken from S. T. Knapp, $11,672.36..... } .. 111
Warrant for lands taken from Van Courtlandt estate, $14,026.11.
Claim of Joseph P. Disbrow, referred to..... 112
Warrants for New York County, $350..... 117
Warrants for Westchester County, $1,071.58..... 117
Warrant for New York County, $200..... 124

COMMISSIONERS OF APPRAISAL—(Continued.) PAGE
Warrant for New York County, $33.96 ..... 131
Warrant for Westchester County, $4,673.46 ..... 144
Communication of; favorable to the taking the fee simple in lieu of an easement in perpetuity in nearly all lands on line of Aqueduct from 135th Street Gate House to City line ..... 150
Warrants for New York County, $1,000 ..... 150
Warrants for New York County, $1,500 ..... 158
Warrant for New York County, $315.85 ..... 169
Warrants for New York County, $200 ..... 185
Warrants for Westchester County, $2,775 ..... 185
Warrants for Manhattan Island Section, $1,100 ..... 217
Warrant for Westchester County, $208.82 ..... 225
Secretary directed to furnish statement showing amount paid out of Additional Water Fund for expenses of ..... 245
Secretary submits statement showing amount paid out of Additional Water Fund to ..... 251
Warrants for Manhattan Island Section, $150 ..... 252
Warrants for New York County, $504 ..... 252
Matter of loss to property of W. H. Barlow and David B. Tompkins at Shaft 1, referred to ..... 252
Warrants for Westchester County, $517.61 ..... 257
Warrants for New York County, $200 ..... 290
Warrants for New York County, $200 ..... 298
Warrants for Manhattan Island Section, $14,149.05 ..... 324
Warrants for New York County, $933.52 ..... 324
Warrants for Westchester County, $236.19 ..... 324
Warrants for New York County, $8,215.52 ..... 330
Warrants for Westchester County, $1,087.47 ..... 335
Warrants for New York County, $200 ..... 335
Secretary directed to furnish Commissioners of Appraisal for New York County Section, atlas map of 24th Ward ..... 335
Warrant for Putnam County, $500 ..... 343
Warrant for Westchester County, $811.70 ..... 355
Warrants for Westchester County, $251.68 ..... 366
Warrants for New York County, $250 ..... 366
Warrants for Westchester County, $201.12 ..... 378
Warrants for New York County, $200 ..... 378
Warrant for Manhattan Island Section, $1,000 (Stephen McCarthy) ..... 385
Warrant for Westchester County, $300 ..... 395
Agreement of submission to; of claims of Joseph P. Disbrow; President and Secretary authorized to execute on behalf of Commissioners ..... 409
Warrants for Westchester County, $4,856.83 ..... 413
Warrants for New York County, $3,950 ..... 413

COMMITTEE ON CONSTRUCTION—
Report in relation to acquiring fee of Parcels 74, 75 and 76 ..... 2
Report and resolutions of; for constructing Sodom Dam and Reservoirs. 5

COMMITTEE ON CONSTRUCTION—(Continued.) PAGE

Recommend that the two special Inspectors be paid $160 per month; not approved ..... 16

Report on lining tunnels; action deferred..... 17

Commissioners Spencer and Baldwin, and the Commissioner of Public Works elected as..... 29

Authorized to detail from Engineer Corps, Special Assistant Engineer to aid Corporation Counsel before Commissioners of Appraisal in matter of adjustment of claims; and requested to prepare and submit amendment to By-laws governing same for Commissioners of Appraisal..... 58

Additional office room asked for on Division 7, referred to; with power..... 72

Recommendation that two Laborers be appointed on Sixth Division, referred to..... 72

Request of A. C. Chenoweth that he be given charge of work on Aqueduct south of 135th Street, referred to..... 73

Authorized to obtain permission from Department of Docks to construct a crib-dock at westerly side of Harlem River crossing, and to report upon building same ..... 85

Secretary reports in regard to lands on Convent Avenue between 137th and 145th Streets; matter referred to..... 97

Report on work on Section 12, Harlem River crossing, and proposed changes in mode of connecting old and new systems of water supplies at that place; action deferred ..... 100

Requests to remove stone from shaft sites by O'Brien & Clark; City of Yonkers and W. H. Warnock, referred to..... 119

Article III. of By-laws amended by providing that Committee on Construction consist of five members..... 119

Commissioners Spencer, Squire, Barnes, Fish and Ridgway elected as. 120

Revocation of action of Commissioners in relation to increase in number of appointments of members of; referred to Special Committee. 132

Requested to consult Counsel to Corporation in relation to course of action to be taken to obtain title to lands for new Aqueduct from New York County line to Croton Lake..... 136

Report adversely to change of line of Aqueduct at Shaft Site No. 8... 137

Requested to consult Counsel to Corporation with regard to power of Commissioners to order contractors (except upon Sections A and B), to construct additional shafts..... 137

Communication of Commissioner of Public Works in relation to reduction of Engineer Corps, and saving of expense in that department, referred to ..... 139

Report of Chief Engineer on fee and easement in lands upon line of Aqueduct, referred to..... 145

Report of Chief Engineer in relation to the surveys and the Engineer Corps upon the Quaker Bridge Dam Reservoir, referred to..... 145

Claim of Joseph P. Disbrow for compensation, referred to..... 147

Detailed plans for Gate House at 135th Street and Convent Avenue, referred to; for examination and report.....

COMMITTEE ON CONSTRUCTION—(Continued.) PAGE
Final Plan Sheets 5A and 5B, and property maps for additional lands at Shafts 25 to 27, and on line of Convent Avenue, referred to... 156
Communication of O'Brien & Clark in relation to closing up Sedgwick Avenue, referred to..... 187
Provided for in By-laws..... 193
Duties, powers and organization of..... 193
Members of; named..... 194
Division of Aqueduct work and assignment of Division Engineers to same, referred to ..... 202
Selection of remaining members of Engineers Corps, referred to..... 202
Requested to report proper action to be taken for commencing construction of dams for storing water of Croton River..... 206
Matter of appointment of Maurice A. Viele, Charles B. Nooney and J. N. H. Cornell as Chainmen, referred to..... 209
Report of; dividing line of Aqueduct from Croton Lake to Central Park into five divisions..... 214
Report on assignment of Division Engineers..... 221
Report on assignment of Engineer Corps..... 221
Communication of O'Brien & Clark notifying Commissioners of purchase of land for shaft site between Shafts 16 and 17, referred to. 257
Matter of construction of additional shaft between Shafts 16 and 17, referred to..... 258
Resignation of Roland G. Rood, Rodman, referred to..... 258
Matter of back pay to Royal Chapin, late Assistant Engineer; referred to..... 259
Minutes of Meetings of; to be read at regular meetings of Commissioners..... 260
Recommend acceptance of resignation of Roland G. Rood, Rodman... 265
Recommend that Royal Chapin, late Assistant Engineer, be allowed back pay to August 6, 1886..... 265
Communication of Commissioner of Public Works in relation to laying the necessary mains between 135th Street Gate House and Central Park Reservoir, referred to..... 266
Amendment of By-laws relating to; To consist of three members; powers and duties..... 271
Commissioners Spencer, Barnes, and the Commissioner of Public Works elected as..... 277
Organization of..... 280
Meetings of; to whom open..... 281
Report in relation to laying mains between 135th Street Gate House and Central Park Reservoir..... 282
Report in relation to shafts required between Shafts 13 and 14, 15 and 16 and 16 and 17 ..... 282
To prepare forms of contract for additional Shaft 16½ ..... 284
Resolution directing that minutes of; be read at meeting of Commissioners; rescinded..... 311
Directed to prepare contract for construction of Shaft 13½..... 313

COMMITTEE ON CONSTRUCTION—(Continued.) PAGE
Communication from Chief Engineer read and ordered filed with..... 315
Matter of settlement of claim of Charles Peterson for, $701.03 for expense of removing solid rock under Harlem River, etc., referred to..... 326
Application of Metropolitan Telephone and Telegraph Company for furnishing a telephone service, referred to..... 330
Report in reference to the immediate construction of the Muscoot Dam and Reservoir, read and referred back to said Committee ..... 340
Chairman of; authorized to issue permits for inspecting Aqueduct ... 346
To report on or before December 1, 1886, in regard to Quaker Bridge and Muscoot Dams ..... 348
President, and Chairman of; to confer with Civil Service Board with regard to rules and regulations to be established for examination of persons applying for positions under Aqueduct Commissioners.. 348
Report on light and ventilation taken up, discussed and laid on the table ..... 351
Report that no inferior sand has been used at Shaft 19½ ..... 356
To report cause of delay of work on Section 13..... 368
Report in relation to above..... 375
Recommend the construction of Shaft 13A..... 376
Recommend that work on Shaft 13½ be suspended until further orders..... 377
Chief Engineer to transmit to; copies of all weekly or other reports made by Principal Assistant Engineers..... 380
Communication from C. R. Cummings, of Brown, Howard & Co., requesting that solid masonry be put in over arch of tunnel, referred to..... 387
Recommend appointment of Board of Experts to consider and report on necessity of constructing the Quaker Bridge Dam and plans for same..... 392
Request of Chief Engineer that two Assistant Engineers and two Rodmen be assigned to the Principal Assistant Engineers, and that an additional Topographical Draughtsman be allowed him for mapping out Croton River survey, referred to ..... 401
Recommendation of Chief Engineer that where members of Engineer Corps have not had their vacations, that they be allowed in the following year, referred to..... 402
Proposed amendment to By-laws relating to, laid over..... 414
Report of experts on light and ventilation, referred to ..... 428
Communication from Alexander Beckers on Quaker Bridge Dam, referred to..... 429

COMMITTEE OF FINANCE AND AUDIT—
Matter of allowance of compensation to Inspectors and others during absence from sickness, referred to..... 8
Commissioners Dowd, Baldwin and the Comptroller elected as..... 29
Make report on examination of bids for Sections 12, 13 and 14..... 31

COMMITTEE OF FINANCE AND AUDIT—(Continued.) PAGE

Reconsideration of resolution detailing Special Assistant Engineer to aid Corporation Counsel before Commissioners of Appraisal, referred to..... 62

Authorized to certify for payment monthly compensation of Deputy Chief Engineer Fteley..... 64

Report adverse to assignment of Special Assistant Engineer to aid counsel representing City before Commissioners of Appraisal. 64

Report on monthly estimates; laid over. ..... 64

Notice of revocation of Board of Estimate and Apportionment of approval of agreement between Aqueduct Commissioners and N. Y. Life Ins. Co. for lands in town of Greenburg, referred to.... .... 87

Notice of lien of James Lunny for $112, referred to..... ..... 87

Discharged from further consideration of matter of lands of N. Y. Life Ins. Co. at Ardsley..... 100

Commissioner Ridgway elected to fill vacancy in..... 121

Communication from Wm. Russell concerning his bills, referred to.... 125

Communication of Commissioner of Public Works in relation to reduction in office of Secretary and saving of expense in that department, referred to..... ..... 139

Report of; relating to employees in office of Secretary..... 148

Claim of Thomas L. Ogden for $389.50, referred to..... 159

Report of; relating to employees in office of Secretary called up, and laid on the table..... ..... ..... 160

Abstract of expenditures of the Commission up to June 30, 1886, presented by Secretary, and referred to ..... ..... 169

Accounts of Examining Engineers Greene, Newton and Gillmore, referred to..... 187

Provided for in By-laws..... 192

Organization of..... 193

Members of; named..... ..... 194

Resolution requiring all requisitions to be approved by Chairman of; lost..... 214

Notice of lien filed by Okonite Company against O'Brien & Clark for $354.12, for materials furnished for Section 12 and Shafts 20 and 21, referred to..... ..... 217

Report on Estimate No. 19, Section B..... ..... ... ..... 248

Matter of payment to David B. Lewis for one and a half months' service, referred to..... 248

Notices of liens filed by P. Flanagan and P. J. Fleming against Sections 13 and 14, and by John Kelly against Shaft 19; referred to..... 267

Recommendation of Chief Engineer that City Paymaster pay members of Engineer Corps in bank bills instead of checks, referred to.... 267

Requested to inquire and report on occupancy of Tarrytown Headquarters by any Commissioner..... 292

Requested to consult Counsel to Corporation in relation to request of Comptroller that Commissioners send to Board of Estimate and Apportionment an estimate of amounts required to pay expenses of conducting business of Commission for 1887, and advise Comptroller..... ... ..... 298

COMMITTEE OF FINANCE AND AUDIT—(Continued.) PAGE

Report on occupancy of Tarrytown Headquarters by any member of the Commission.... 301

Requested to refuse to approve any bill hereafter presented for meals furnished members of Commission.... 308

Estimate expenses of Commissioners for 1887, at $5,000,000.... 312

Report that the sum of $7,000,000 will be required for expenses of Aqueduct Commissioners for 1887.... 332

Bill of John Townshend for $250, for professional services rendered in opening Shaft 18½, referred to.... 337

Matter of part payment for iron-work and cut stone, referred to.... 350

Report in regard to first charge against Chief Engineer by Mr. Craven, exonerating him from all blame.... 350

Report supplementary pay-roll for Engineer Corps; matter of pay of Joseph C. Ryan, referred back to.... 355

Report progress on matter of allowing Coldwell, Wilcox & Co. 50 per cent. on their contract for iron-work; also on matter of part payment to Smith & Brown for stone delivered for Gate House on Section 1.... 364

Report in favor of above payment to Coldwell, Wilcox & Co. and against part payment to Smith & Brown.... 370–1

Communication from H. S. Craven in relation to expenses incurred by him for counsel fees, referred to.... 382

Communication of Chief Engineer with regard to cement used in foundation concrete in open cut at Shaft 18, referred to.... 383

Communication of Chief Engineer asking an appropriation of $498 for land maps of lands required for right of way between Croton Dam and Harlem River, referred to.... 383

Recommendation of Chief Engineer that A. A. Aguirre be granted a leave of absence of three months without pay; and that he be allowed pay for January, March, May and October, 1886, time absent on account of sickness; referred to.... 384

Recommendation of Chief Engineer that Inspectors be paid for overtime, referred to.... 385

Report in favor of appropriation of $498 for land maps of lands required for right of way between Croton Dam and Harlem River.... 390

Recommend that bill of Rider & Dougherty of $185.25 for taking up and laying concrete in experimental section near Yonkers Avenue be allowed.... 391

Recommend that A. A. Aguirre be allowed four months leave of absence, without pay, and that he be allowed 60¼ days pay for time absent on account of illness.... 391

Recommend that no allowance be made to Inspectors for overtime.... 391

Matter of acceptance of work, etc., furnished by Coldwell, Wilcox & Co. for iron-work for blow-offs and waste weirs at Pocantico and Tibbitt's Brook, referred to.... 411

Request of E. L. Allen, Stenographer, that his salary be increased to $1,500, referred to.... 413

COMMITTEE OF FINANCE AND AUDIT—(Continued.) PAGE

Recommend acceptance of work, etc., furnished by Coldwell, Wilcox & Co., for iron-work, for blow-offs, etc., at Pocantico and Tibbitt's Brook; accepted and final payment authorized..... 422

Recommend that salary of E. L. Allen, Stenographer, be fixed at $1,250 per annum; adopted..... 423

Request of Charles J. Febre, Bookkeeper, for increase of salary from $1,500 to $1,800 per annum, referred to ..... 429

COMMITTEE ON REAL ESTATE—

Provided for in amended By-laws. Powers and duties of..... 271

Commissioners Spencer, Dowd and Fish elected as..... 277

Commissioner Fish declines to act as a member of..... 278

Report on the taking in fee in lieu of an easement of lands on the line of the Aqueduct in Westchester County, 24th Ward, and on Manhattan Island Section..... 286

Matter of filling vacancy in; laid over..... 291

Report on work to be done in taking of lands, etc., and recommend that the term of service of James W. McCulloh, as Special Assistant to the Chief Engineer, be extended to January 1, 1887. Action deferred..... 295

Plan of lands on line of Aqueduct between 145th and 152d Streets submitted by Commissioner of Public Works, referred to Chief Engineer and..... 296

Report of; in relation to retaining services of James W. McCulloh as Special Assistant to Chief Engineer taken up and laid over for two weeks..... 304

Oliver W. Barnes elected to fill vacancy in..... 306

Directed to take necessary steps to acquire fee in lands required for construction of Shaft 15½..... 315

Report organization of; by election of Commissioner Spencer as Chairman and James W. McCulloh as temporary Secretary..... 317

To furnish information relative to negotiations which are being made for the purchasing of lands for Aqueduct purposes..... 331

Report on above..... 334

Counsel to Corporation requested to give his opinion as to powers of Commissioners in filling office of Secretary of; as to whether a non-resident of the State of New York can be appointed to such office, and whether such office is not subject to Civil Service rules. 337

Opinion of Counsel to the Corporation in relation to above read and referred to Special Committee..... 343

Report in relation to taking lands for Shaft Sites Nos. 8 and 15½..... 346

Report on result of negotiations for lands required for Shaft Site 15½.. 392

Communication from Counsel to Corporation regarding proof of advertisement for Shafts 8 and 15½; referred to Chief Engineer to report to..... 401

Communication from William H. Webb in regard to springs on his property running dry, referred to..... 402

COMMITTEE ON REAL ESTATE—(Continued.) PAGE

Report upon matters connected with double reservoirs at Sodom, and the relocation of the New York and New England Railroad, referred to Special Committee consisting of this Committee and the Counsel to the Corporation..... 407

Report in relation to agreement of submission on behalf of Commissioners of claims of Joseph P. Disbrow for use of his lands in the 24th Ward of the City of New York..... 409

Communication from Counsel to Corporation in reference to placing monuments on property required for Sodom Dam and Reservoir, referred to..... 411

To complete details necessary for carrying out proposed settlement with the N. Y. & N. E. R. R. Co., in reference to change of location of their railroad near Sodom..... 418

Report progress in negotiations with N. Y. & N. E. R. R. Co..... 427

COMMITTEES—(See also "Special Committees")—

Of Finance and Audit; election of.....29, 194

On Construction; election of.....29, 121, 194

Election of; provided for in By-laws..... 192

Amendment of By-laws relating to..... 271

On Construction and Real Estate; election of..... 277

Proposed amendment to Section 1 of Article II. of By-laws relating to; laid over..... 417

COMPTROLLER—

Elected member of Committee of Finance and Audit..... 29

Requested to raise $2,000,000 for uses and purposes of Aqueduct Commissioners..... 128

Gives notice that the balance remaining due to the credit of the "Additional Water Fund" to be $777,956.66..... 131

Secretary directed to transmit to; copy of notice from O'Brien & Clark and Heman Clark, that they will hold the City liable for damages arising from delay in payment of monthly estimates.... 150

Gives notice of sale of $2,000,000 Additional Water Stock and of $2,100,920 being placed to credit of "Additional Water Fund".. 157

Requested to forward pay of Engineer Corps and Inspectors to them on the work..... 226

Communication from; in relation to above..... 243

Resolution requesting Comptroller to forward pay of Engineer Corps and Inspectors to them on the work reconsidered and laid on the table..... 245

Requests Commissioners to send to Board of Estimate and Apportionment an estimate of amounts required to pay expenses of conducting business of Commission for 1887. Committee of Finance and Audit requested to consult Counsel to Corporation on same and advise Comptroller..... 298

Committee of Finance and Audit estimate expenses of Commissioners for 1887 at $5,000,000; Secretary directed to transmit to..... 312

COMPTROLLER—(Continued.) PAGE
Communication from; declining to comply with request of Commissioners to have Paymaster pay members of Engineer Corps along line of Aqueduct in bank bills instead of checks..... 324
Committee of Finance and Audit report that $7,000,000 will be required for expenses of Commissioners for 1887; Secretary directed to transmit to..... 332
Requested to raise $2,000,000 for use of Aqueduct Commissioners.... 333

CONDUIT—
Commissioner of Public Works requested to submit plans, maps, etc., for; between Gate House at 135th Street and Convent Avenue and the Gate House at the Central Park Reservoir .....43, 104
Line of; between Gate House at 135th Street and Convent Avenue and Gate House at Central Park Reservoir..... 105
Commissioner of Public Works requested to submit plans, etc., for; from 135th Street to Central Park Reservoir..... 155
Above submitted by Commissioner of Public Works..... ..... 168

CONNORS, JOHN—
Assigned as Laborer to Fourth Division..... 224

CONSULTING ENGINEER—
Granted leave of absence for three months without pay..... 44
Resignation of Joseph P. Davis as; accepted..... 188
Alphonse Fteley appointed..... 189
Chief Engineer authorized to call Mr. A. Fteley to active duty.. .... 265
Salary of A. Fteley as; fixed at $5,000 per annum..... 265
Provided for in amended By-laws..... 270

CONTRACT DRAWINGS—
Appropriation of $112 for; for Sections 12, 13 and 14..... 29
Secretary directed to furnish set of drawings, plans, etc, to Walter Wood; University of New York, also to complete set of the Engineers of Washington Aqueduct... ..... 136
For Gate House at 135th Street and Convent Avenue, approved..... 216
Appropriation of $450 to have same photo-lithographed.... ..... 216
Appropriation of $400 for mounting and binding; for Gate Houses on Sections 1 and 15, also for Sections 12, 13 and 14..... ..... 314
Chief Engineer directed to send copies of; to Columbia College School of Mines..... ..... 330

CONTRACTORS—
Estimates for December, 1885, approved..... 16
Estimates for January, 1886, approved..... 51
Chief Engineer instructed to be governed by opinion of Counsel to the Corporation in relation to changes of timbering in Aqueduct tunnels; and allowances for certain excavations asked for by..... 58
Estimates for February, 1886, approved.... ..... ..... 71
To be notified to place fences upon lands of Wm. H. De Forest..... .. 72
Estimates for March, 1886, approved..... ..... ..... 83

CONTRACTORS—(Continued.) PAGE

Requested to take every possible precaution to guard against introduction of men who have been exposed to contagious diseases, and to comply with suggestions of Boards of Health in relation to small-pox..... 93

Secretary to transmit copy of letter of Secretary of State Board of Health to each..... 93

Chief Engineer presents estimates for work done during April, 1886.. 106

Estimates for April, 1886, approved..... 109

Committee on Construction to consult Counsel to Corporation with regard to power of Commissioners to order construction of additional shafts (except upon Sections A and B) by..... 137

Chief Engineer to investigate and report whether requirements of Section 29 of contract respecting light and ventilation are complied with by all; and hereafter to require them to comply with same. 138

Estimates for May, 1886, approved..... 143

Chief Engineer reports concerning past observance of requirements of contracts in relation to light and ventilation in tunnels by..... 151

Estimates for June, 1886, approved..... 173

Brown, Howard & Co. complain of delay in payment of their estimates 208

Estimates for July, 1886, approved..... 230

Complaints from O'Brien & Clark and Brown, Howard & Co. regarding delay in payment of estimates.....124, 251

Estimates for August, 1886, approved..... 264

Chief Engineer directed to have monthly estimates of; made up to and including last day of each month..... 290

O'Brien & Clark and Heman Clark complain of delay in payment of their estimates..... 297

Estimates for October, 1886, approved..... 359

Counsel to the Corporation requested to give his opinion as to the best means to compel the contractors to provide proper lighting and ventilating apparatus..... 365

Opinion of Counsel to the Corporation in relation to the above..... 372

John Brunton & Co. notify Commissioners that they have contracted for a Brush Electric Light plant for their work..... 378

Brown, Howard & Co. and John Brunton & Co. granted five days in which to discontinue the use of gasoline torches on their work... 383

Chief Engineer to report names of Tunnel Inspectors who are now employed on work of; in whose employ they formerly were..... 386

Brown, Howard & Co. request that solid masonry be put in over arch of tunnel; referred to Committee on Construction..... 387

Estimates for November, 1886, approved..... 396

CONTRACTS—

Forms of contracts, specifications and bonds for Sections 12, 13 and 14 submitted by Commissioner of Public Works..... 1

Same approved and adopted..... 2

For culvert at Shaft 19 awarded to O'Brien & Clark..... 9

For culvert at Shaft 20 awarded to Heman Clark..... 9

CONTRACTS—(Continued.) PAGE
For Section 12 awarded to O'Brien & Clark..... 40
For Sections 13 and 14 awarded to John Brunton & Co..... 41
For Sections 13 and 14 ordered to be executed with John Brunton & Co ..... 46
For Section 12 ordered to be executed with O'Brien & Clark..... 46
For Shaft 19½ awarded to Heman Clark ..... 46
Chief Engineer to investigate and report whether requirements of Section 29 of; respecting light and ventilation are complied with by all contractors; and hereafter to require contractors to comply with same..... 138
Chief Engineer reports concerning past observance of; by contractors in relation to light and ventilation in tunnels..... 151
For crib-dock on westerly side of Harlem River awarded to Charles Peterson..... 174
For iron-work for Waste Weir Gate Houses at Pocantico, Saw Mill River, and Tibbett's Brook, awarded to Coldwell, Wilcox & Co... 180
For Shaft 2C awarded to O'Brien & Clark..... 186
For Shaft 11C awarded to Brown, Howard & Co..... 187
Secretary directed to furnish list of all contracts made prior to appointment of Commissioners as provided in Chapter 337, Laws of 1886..... 226
Report of Secretary on above..... 237
For Shaft 16½ awarded to O'Brien & Clark..... 284
Committee on Construction to prepare form of; for additional Shaft 16½..... 284
Committee on Construction directed to prepare; for construction of Shaft 13½..... 313
Execution of; for Shaft 12C by sureties of O'Brien & Clark waived... 327
Execution of; for Shaft 16½ by sureties of O'Brien & Clark waived... 362
Execution of; for Shaft 11C by sureties of Brown, Howard & Co. waived ..... 384

CONVENT AVENUE—
Report of Secretary on lands on line of; between 137th and 145th Streets, referred to Committee on Construction..... 97
Additional lands to be taken on line of; between 135th and 145th Streets in fee ..... 116
Public hearing for taking the fee in all lands on line of; between 135th and 145th Streets..... 133
Final plan Sheets 5A and 5B, and property maps for additional lands to be taken on line of; referred to Committee on Construction... 156
Secretary to confer with Board of Street Openings with regard to opening; from 137th to 145th Streets..... 164
Final plan Sheet 5B, and property maps of additional lands upon line of; approved and adopted ..... 181
Property maps showing lands to be taken in fee at 145th Street and; submitted by Commissioner of Public Works, approved and adopted..... 327, 335

CONWAY, JOHN J.— PAGE
Assigned as Chainman to First Division..... 222

CORKEY, MICHAEL—
Appointed Laborer..... 382

CORNELL, J. N. H.—
Matter of Appointment of; as Chainman, referred to Committee on Construction..... 209
Appointed Chainman..... 217
Assigned to Fourth Division..... 224

COST—
Chief Engineer reports length of Aqueduct constructed and cost of same..... 242
Of shanties to allow Inspectors and members of the Engineer Corps to change their clothes, not to exceed $70..... 406

COUNSEL TO THE CORPORATION—
Requested to take legal steps to amend proceedings, and to acquire fee of Parcels 74, 75 and 76..... 3
To be directed to appeal from decision in relation to jurisdiction of Civil Service rules and regulations..... 5
Secretary to confer with; in relation to question of increased area of reservoirs..... 17
Chief Engineer to consult with; on legal questions involved in method of timbering tunnels and allowances asked for by Contractors... 17
Requested to appeal from decision of Judge Lawrence in relation to jurisdiction of Civil Service Laws governing employees of Aqueduct Commissioners..... 19
Secretary directed to obtain opinion and interpretation of contract as to question of expense for removal of air-box used by Contractors on Section 1 from..... 42
Opinion from; adverse to jurisdiction asserted by Commissioners of Accounts in regard to accidents..... 53
Opinion in regard to changes in method of timbering in tunnels; action deferred..... 53
Gives notice of filing of amended property maps No. 1 (covering parcels 74–76½), in office of Register of City and County of New York; maps 4, 5 and 6 delivered to Commissioners of Appraisal..... 54
Committee on Construction authorized to detail from Engineer Corps "Special Assistant Engineer" to aid Counsel to Corporation before Commissioners of Appraisal in matter of adjustment of claims..... 58
Gives notice of filing of amended property map No. 2 (parcels 74 to 76½) in Register's Office of Westchester County..... 59
Chief Engineer and Secretary directed to confer with; in regard to seeming defect in property maps of Aqueduct through Convent Avenue, and amended maps (137th to 145th Streets) and report.. 61

COUNSEL TO THE CORPORATION—(Continued.) PAGE

Reconsideration of resolution detailing Special Assistant Engineer to aid Corporation Counsel before Commissioners of Appraisal; referred to Committee of Finance and Audit..... 62

Committee of Finance and Audit report adverse to detailing said Special Assistant Engineer.. ..... 64

Chief Engineer directed to confer with; in relation to cave-in on lands of Cyrus W. Field, south of Shaft 13, and report..... 64

Opinion of; in relation to removal of air-box on Section 2, at Croton Dam; placed on file..... 76

Secretary directed to confer with; in relation to evidence to be given in cases before Commissioners of Appraisal for Westchester County and report..... 88

Secretary reports conference with; in relation to furnishing witnesses before Commissioners of Appraisal for Westchester County..... 92

Property maps (Exhibit FF) to be transmitted to Corporation Counsel for filing; requested to take proceedings for appointment of Commissioners of Appraisal..... 101

Property maps (Exhibit II) to be transmitted to; for filing; requested to take proceedings for acquirement of lands therein described... 102

Secretary to confer with; about claim of Joseph P. Disbrow, and report..... 107

Requested to take proceedings for the acquirement of additional lands on Section 12, and at or near Shafts 25, 26 and 27; and between 135th and 145th Streets on line of Convent Avenue..... 116

Secretary to submit to; communication from counsel for Joseph P. Disbrow about his claim, and report what action said counsel advises to be taken..... 118

Notice from said Disbrow of his revocation of any license given Commissioners for occupancy of Parcel 72, and demanding that said premises be vacated immediately, referred to..... 125

Requested to take steps for amending proceedings about lands of said Disbrow (Parcel 72); Chief Engineer and Secretary to furnish said counsel required maps and information..... 129

Committee on Construction to confer with; in relation to course of action to be taken to obtain title of lands for new Aqueduct from New York County line to Croton Lake..... 136

Committee on Construction to consult; with regard to power of Commissioners to order contractors (except upon Sections A and B) to construct additional shafts..... 137

Gives notice of filing in Putnam County of Property Map No. 1 (lands required for dams and reservoirs on east branch of Croton River)..... 141

Gives notice of filing in New York County of Property Map No. 1 (lands required for new Gate House at Convent Avenue and 135th Street)..... 142

Gives notice of filing in Westchester County of Property Map No. 2.. 142

President directed to submit question of delay in payment of monthly estimates to..... 159

COUNSEL TO THE CORPORATION—(Continued.) PAGE

Secretary directed to transmit to; for filing, property maps of additional lands to be taken in fee at and near Shafts 25, 26 and 27, and upon the line of Convent Avenue..... 185

Opinion of; that Comptroller has right to make necessary examinations in relation to Contractors' monthly estimates..... 218

Communication of Chief Engineer in relation to ventilating and lighting the tunnels of the Aqueduct, referred to..... 232

Gives notice that appeal has been made in matter of Civil Service Examining Board..... 242

Opinion of; regarding power of Chief Engineer to provide adequate light and ventilation..... 251

Committee of Finance and Audit to consult; in relation to request of Comptroller that Commissioners send to Board of Estimate and Apportionment an estimate of amounts required to pay expenses of conducting business of Commission for 1887; and advise Comptroller..... 298

Secretary directed to transmit to; for filing, property maps of additional lands to be taken in fee simple in the 12th Ward of the City of New York ..... 329

Requested to give his opinion as to powers of Commissioners in filling office of Secretary of Committee on Real Estate, whether a non-resident of State of New York can be appointed to such office; also whether such office is not subject to Civil Service rules ..... 337

Opinion of; in relation to above, read and referred to Special Committee ..... 343

Gives notice of filing of Map No. 1 of Final Plan Sheet No. 5 with the Register of New York County..... 343

Requested to take required proceedings to acquire lands for shaft sites Nos. 8 and 15½..... 365–6

Requested to give his opinion as to the best means to compel the Contractors to provide proper lighting and ventilating apparatus.... 368

Opinion of; in relation to above..... 372

Communication from; regarding proof of advertisement for Shafts 8 15½, referred to Chief Engineer to report to Committee on Real Estate..... 401

Communication from: in relation to placing monuments on property required for Sodom Dam and Reservoir, referred to Committee on Real Estate..... 411

Resolution requesting; to prepare bill for introduction in Legislature authorizing change of location of New York and New England Railroad near Sodom, laid over.....429–30

CRAVEN, ALFRED—

Given permission to use unoccupied portions of office building of Division 4 for his family..... 100

Assigned as Division Engineer to Third Division..... 221

CRAVEN, HENRY S. (ENGINEER OF CONSTRUCTION)— PAGE
Makes charges against efficiency of Chief Engineer of Aqueduct Commission..... 65
Removed from office of Engineer of Construction..... 66
Commissioners Loew and Baldwin requested to present names of Engineers to act as Investigating Committee..... 66
Commissioner Dowd votes negatively on resolution removing Engineer of Construction Craven..... 67
Matter of removal of books and papers from office at Tarrytown by H. S. Craven, referred to Commissioner Spencer for adjustment..... 81
Communications from Chief Engineer and H. S. Craven, referred to Committee on Construction, with request that full examination be made in regard to engineering work on new Aqueduct..... 86
Secretary directed to obtain original reports of Division and Assistant Engineers to Engineer of Construction, and submit same to Board of Examining Engineers..... 111
President directed to request H. S. Craven to return all property belonging to Aqueduct Commissioners..... 229
President requested to submit copies of correspondence between himself and H. S. Craven in relation to books, etc., in his possession.. 307
Communication from; in relation to expenses incurred by him for counsel fees, referred to Committee of Finance and Audit..... 382

CRIB-DOCK—
On westerly side of Harlem River, near Shaft 25; agreement for constructing to be made with Charles Peterson..... 174
President authorized to execute above..... 174
On westerly side of Harlem River, near Shaft 25; work and materials furnished by Charles Peterson on, accepted and voucher for final payment authorized..... 299
Final sub-estimate of Charles Peterson (Voucher 2058) for above, approved..... 325

CROES, J. J. R.—
Name presented by Commissioner Baldwin for one of the experts to be selected on Quaker Bridge Dam..... 403

CROTON RIVER—
Committee on Construction requested to report proper action to be taken for commencing construction of dams for storing water of.. 206

CULVERT—
Contract for constructing, on dumping grounds of Shaft 19, awarded to O'Brien & Clark..... 9
Contract for constructing, on dumping grounds of Shaft 20, awarded to Heman Clark..... 9
Secretary to prepare agreements and certificates for same..... 9
President and Vice-President to execute agreements for construction of; on dumping grounds of Shafts 19 and 20 with O'Brien & Clark and Heman Clark..... 12

CULVERT—(Continued.) PAGE
Work on; across dumping grounds of Shaft 20, done by Heman Clark, accepted and final payment authorized ..... 266
Communication from Mayor of Yonkers in relation to removal of; in said city, referred to Chief Engineer with power..... ..... 290
At Shaft 20; final estimate for; approved..... ..... 294
Across dumping grounds of Shaft 23; work done by O'Brien & Clark on; accepted and voucher for final payment authorized..... 300
Final sub-estimate of O'Brien & Clark (Voucher 2057) for above approved..... ..... 325
Across dumping grounds of Shaft 19; work done by O'Brien & Clark on; accepted and voucher for final payment authorized..... 335
Final sub-estimate (Voucher 2101) for above, approved.... ..... 341

CUNNINGHAM, G. H.—
Reduced from Leveler to Rodman and assigned to Second Division... 223

CURÉ, GUSTAVE—
Honorably discharged as Chainman ..... ..... 233

CUSHING, WILLIAM—
Appointed Inspector of Masonry..... 377

CUSHING'S MANUAL—
To govern proceedings of Aqueduct Commissioners..... 181
Questions of order and parliamentary usage not covered by the Rules of Order to be governed by..... .. ..... 323

(D)

DALY, WILLIAM J.—
Appointed Inspector of Masonry..... ..... 388

DAMS—
Committee on Construction requested to report proper action to be taken for commencing construction of; for storing water of Croton River..... ..... ..... 206

DARRAGH, ROBERT L.—
Protests against closing of public hearing on Quaker Bridge Dam.... 36

DAVIS, JOSEPH P.—
Granted leave of absence for three months without pay..... ..... 44
Resignation as Consulting Engineer accepted..... 188

DAVIS, SOLOMON—
Resignation as Transitman accepted..... 42

DE FOREST, WILLIAM H.—
Arrangement with; for use of land on Convent Avenue between 140th and 141st Streets, approved..... ..... ..... 65
Secretary directed to request confirmation of same..... 65
Confirms agreement for use of his land; contractors to be notified to construct fences on said lands. .... ..... 72
Counsel for Mr. De Forest heard in relation to the taking of his lands. 135

DEITZ, GEORGE J.— PAGE
Appointed Chainman..... 382
Appointment as Chainman revoked..... 405
Appointed Axeman..... 407

DELANCEY, E. E.—
Assigned as Rodman to First Division..... 222

DE LUZE, LOUIS P.—
Promoted from Rodman to Leveler..... 6
Honorably discharged from the work..... 233

DEPARTMENT OF DOCKS—
Committee on Construction to obtain permission from; to construct a dock at westerly side of Harlem River crossing, and report..... 85

DEPARTMENT OF PUBLIC WORKS—(SEE ALSO "COMMISSIONER OF PUBLIC WORKS")—
Chief and Consulting Engineers of; present views and reasons in favor of the construction of the Quaker Bridge Dam ..... 49
Secretary directed to have 1,000 copies of same printed..... 50

DEPUTY CHIEF ENGINEER—
Committee of Finance and Audit authorized to certify for payment, monthly compensation of..... 64
Resignation of Alphonse Fteley as; accepted..... 189
Provided for in amended By-laws..... 270

DEWITT, ROBERT—
Appointed Chainman..... 220
Assigned to Third Division..... 223

DIAMOND DRILL—
Chief Engineer given authority to employ a temporary helper for work on..... 175

DISBROW, JOSEPH P.—
Action deferred on report in relation to claim of ..... 91
Award of $1,200 to; for damages to his house in the 24th Ward..... 98
Secretary directed to confer with Counsel to Corporation and report in regard to claim of..... 107
Secretary reports conference with Counsel to Corporation in regard to claim of; matter of claim of, referred to Commissioners of Appraisal ..... 111
Secretary directed to submit to Counsel to Corporation communication from counsel of; in relation to his claim, and report what action said counsel advises to be taken..... 118
Notice from; of his revocation of any license given Commissioners for occupation of Parcel 72, and demanding that said premises be vacated immediately, referred to Counsel to Corporation ..... 125
Counsel to Corporation requested to take immediate steps for amending proceedings in relation to lands of (Parcel 72); Chief Engineer and Secretary directed to furnish said counsel the required maps and information..... 129

DISBROW, JOSEPH P.—(Continued.) PAGE
Public hearing on acquirement of fee in lieu of an easement on lands of (Parcels 71, 72 and 73) ..... 133
Above public hearing closed..... 141
Above public hearing reopened at request of counsel for..... 146
Heard in opposition to taking fee in Parcels 71, 72 and 73..... 146
Claim for compensation referred to Committee on Construction, and public hearing closed..... 147
President and Secretary authorized to accept conveyance from; for use of his lands in 24th Ward, and execute agreement of submission on behalf of Commissioners..... 409

DISC-DIAGRAMS—
Appropriation of $500 for additional copies of..... 11

DISC-DIAGRAM MACHINES—
Appropriation of $500 for..... 312

DISMISSALS—
Frederick W. Watkins, Division Engineer.....202, 206
E. Sherman Gould, Division Engineer.....202, 206
James W. McCulloh, Secretary..... 209
E. D. Johnston, Assistant Engineer ..... 220
Royal Chapin, Assistant Engineer..... 233
Thomas D. Whistler, Assistant Engineer..... 233
Henry H. Bowley, Transitman..... 233
Louis P. De Luze, Leveler..... 233
Alfred H. Renshaw, Leveler..... 233
Gustave Curé, Chainman..... 233
Addis E. Carr, Chainman..... 233
John P. R. Taaffe, Chainman..... 233
W. B. Swan, Assistant Engineer..... 233
Frank E. Clark, Inspector of Masonry..... 253

DIVISIONS—
No. 7; placed in charge of Edward Wegmann, Jr., Division Engineer. 56
No. 7; additional office room for; referred to Committee on Construction with power..... 72
No. 6; recommendation that two Laborers be appointed; referred to Commtttee on Construction with power..... 72
No. 6; appropriation of $1,250 for instruments and $250 for office furniture for..... 84
No. 4; Alfred Craven, Division Engineer, given permission to use unoccupied portions of office building for his family ..... 100
No. 2; Chief Engineer authorized to employ Laborer for..... 123
No. 7; Chief Engineer authorized to contract with Tenth Avenue Cable Road for transportation of Engineers of ..... 130
Of Aqueduct work, and assignment of Division Engineers to same, referred to Committee on Construction..... 202
Of Aqueduct work from Croton Lake to Central Park divided into five divisions; report of Committee on Construction..... 214

DIVISIONS—(Continued.) PAGE
Assignment of Division Engineers to..... 221
No. 7; appropriation of $150 for instruments and floor covering for 125th Street office..... 326

DIVISION ENGINEERS—
Chief Engineer recommends that pay of; be increased; action deferred..... 53
Chief Engineer directed to place work upon Division No. 7 in charge of Edward Wegmann, Jr..... 56
Secretary directed to obtain original reports of Division and Assistant Engineers to Engineer of Construction, and submit same to Board of Examining Engineers..... 111
Provided for in By-laws..... 192
Salaries of; fixed at $250 per month..... 202
Services of Frederick W. Watkins and E. Sherman Gould as; dispensed with..... 202
Assignment of; referred to Committee on Construction..... 202
Services of Frederick W. Watkins and E. Sherman Gould as; extended to August 15th..... 206
Committee on Construction report on assignment of; adopted..... 221

DOCKS—(See Department of Docks.)

DODGE, HENRY I.—
Assigned as Rodman to Fourth Division..... 224

DOLAN, P.—
Sale of wood to; for $30..... 247

DONNELLY, JOHN—
Appointed Inspector of Masonry..... 388

DOOLEY, JOHN C.—
Appointed Inspector of Masonry..... 155

DOUBLE RESERVOIR I—(See also "Sodom Dam and Reservoir")—
To be known as "East Branch Reservoir"..... 102

DOUW, CHARLES G.—
Promoted from Rodman to Assistant Engineer, and assigned to Sixth Division..... 224

DOWD, WILLIAM (Commissioner)—
Elected Vice-President of Aqueduct Commissioners..... 28
Votes negatively on resolutions removing Engineer of Construction Craven..... 67
Appointed on Committee to prepare and present amendments to By-laws..... 119
Votes negatively on appointment of Inspectors of Masonry..... 155
Elected member of Committee of Finance and Audit..... 29, 194
Appointed on Committee to draft resolutions on death of Hubert O. Thompson..... 203
Elected member of Committee on Real Estate..... 277

DRAWINGS— PAGE

Secretary directed to furnish set of drawings, plans, etc., to Walter Wood and University of the City of New York, and complete set to Engineers of Washington Aqueduct..... 136

(E)

EASEMENT—

Report of Chief Engineer on fee and easement in lands upon line of Aqueduct, referred to Committee on Construction..... 145

Committee on Real Estate report on taking the fee in lieu of an easement of lands in Westchester County, 24th Ward and on Manhattan Island section..... 286

EAST BRANCH RESERVOIR—(See also "Sodom Dam and Reservoir")—

Commissioner of Public Works submits detailed plans and property maps (Exhibit FF) of lands required for ..... 27, 96

Same approved and adopted ..... 101

Double Reservoir I to be known as..... 102

Counsel to Corporation gives notice of filing in Putnam County of Property Map No. 1 of land required for..... 141

Report of Committee on Real Estate on matters connected with; and the relocation of the New York and New England Railroad ..... 407

EASTON, LANGDON C.—

Promoted from Chainman to Rodman ..... 222

ELECTION OF OFFICERS—

For year 1886..... 28

EMPLOYEES—

Secretary instructed to report within ten days the names of employees who have drawn salaries while absent from duty; also time and amount of salary paid..... 126

Communication of Commissioner of Public Works relative to reduction of; in office of Secretary, referred to Committee of Finance and Audit..... 139

Report of Committee of Finance and Audit relating to; in office of Secretary..... 148

Above report called up and laid on the table..... 160

Commissioner Ridgway presents minority report in relation to compensation of; in Secretary's office..... 169

Chief Engineer to make application to Commissioners in open session for; needed in Engineer Corps..... 382

Competition for position of Chief Clerk in Chief Engineer's office to be open to all..... 428

ENDICOTT, GEORGE—

Assigned as Rodman to First Division..... 222

ENGINEER CORPS—

Communication of Commissioner of Public Works in relation to reduction of; and saving of expense in that department, referred to Committee on Construction..... 139

ENGINEER CORPS—(Continued.) PAGE
Engaged on surveys, etc., upon Jerome Park Reservoir, suspended until required for other work ..... 145
President and Vice-President to execute leases authorized by Commissioners for buildings rented for use of ..... 151
Jerome Park Reservoir survey party, suspension reported by Chief Engineer ..... 151
Organization of ..... 179
Provided for in By-laws ..... 196
Rank of officers and employees of ..... 197
Assignment of Division Engineers and selection of remaining force, referred to Committee on Construction ..... 202
Future increase in; to be made from former employees of Commissioners ..... 203
Committee on Construction report on assignment of ..... 221
Above report adopted ..... 225
Comptroller requested to forward their pay to them on the work ..... 226
Chief Engineer to notify Engineers of; to what districts they have been assigned ..... 229
Resolution requesting Comptroller to forward pay of; to them on the work, reconsidered and laid on the table ..... 245
Partial reassignment of ..... 248
No allowance to be made or bills paid for keep of horses belonging to members of ..... 259
Recommendation of Chief Engineer that the City Paymaster pay the members of; in bank bills instead of checks, referred to Committee of Finance and Audit ..... 267
Provided for in amended By-laws ..... 270
Communication from Comptroller declining to comply with request of Commissioners to have Paymaster pay members of; along line of Aqueduct in bank bills instead of checks ..... 324
Chief Engineer to advertise for proposals for furnishing coal for offices of; and purchase same from lowest bidder ..... 326
Purveyor directed to purchase coal for offices of ..... 334
Chief Engineer to make application to Commissioners in open session for employees needed in ..... 382
Recommendation of Chief Engineer that where member of; have not taken their vacation that the same be allowed in the following year, referred to the Committee on Construction ..... 402
Grade of Axeman established in ..... 405

ENGINEERING NEWS AND CONTRACT JOURNAL—
Secretary directed to publish abbreviated advertisment for proposals for construction of Section 15 in ..... 420

ENGINEER OF CONSTRUCTION (H. S. Craven)—
Declines to resign, and prefers charges against Chief Engineer of Aqueduct Commissioners, alleging that there is defective work on the new Aqueduct, and that undue allowances have been made to contractors ..... 65

ENGINEER OF CONSTRUCTION (H. S. CRAVEN)—(Continued.) PAGE
Removal from office of..... 66
Commissioners Loew and Baldwin requested to present names of Engineers to act as Investigating Committee..... 66
Communication from H. S. Craven, referred to Special Committee..... 66
Commissioner Dowd votes in the negative on removal from office of.. 67
Matter of removal of books and papers from office at Tarrytown by H. S. Craven, referred to Commissioner Spencer for adjustment.. 81
Secretary directed to obtain original reports of Division and Assistant Engineers to; and submit same to Board of Examining Engineers..... 111

ESTIMATE AND APPORTIONMENT—(SEE "BOARD OF ESTIMATE AND APPORTIONMENT.")

ESTIMATES—
Of contract work for December, 1885, approved..... 16
Of contract work for January, 1886, approved..... 51
Report of Committee of Finance and Audit in relation to; laid over.. 64
Of contract work for February, 1886, approved..... 71
Of contract work for March, 1886, approved..... 83
Chief Engineer presents statement of; for work done by contractors during April, 1886..... 106
Of contract work for April, 1886, approved..... 109
Contractors Heman Clark, O'Brien & Clark and Brown, Howard & Co. give notice that they will hold Commissioners responsible for delay in payment of; for April, 1886..... 124
Of contract work for May, 1886, approved..... 143
Contractors O'Brien & Clark and Heman Clark give notice that they will hold the City liable for damages arising from delay in payment of.....152, 188, 297
Of contractors approved (erroneous deductions on Sections 8 and 9)... 154
President directed to submit delay in payment of; to Counsel to Corporation for his opinion..... 159
Maps, plans, specifications and estimates for a conduit or pipe lines between 135th Street and Central Park Gate Houses, referred to Chief Engineer for examination and report..... 168
Of contract work for June, 1886, approved..... 173
Brown, Howard & Co. give notice that they will hold the City responsible for delay in payment of..... 208
Opinion of Counsel to the Corporation that Comptroller has right to make necessary examinations of Contractors' monthly estimates.. 218
Of contract work for July, 1886, approved..... 230
Committee of Finance and Audit report on Estimate No. 19, Section B; approved..... 248
Complaints from contractors O'Brien & Clark and Brown, Howard & Co. regarding delay in payment of..... 251
Of contract work for August, 1886, approved..... 264
Final; for work done by Heman Clark on culvert across dumping grounds of Shaft 20, presented and payment authorized..... 266

ESTIMATES—(Continued.) PAGE

Chief Engineer directed to have monthly estimates of contractors made to and including last day of each month..... 290
Sub-estimate for work at Shaft 19½, approved..... ..... 294
Final; for culvert at Shaft 20, approved ..... 294
Final sub-estimate for culvert at Shaft 23, approved..... ..... 325
Final sub estimate for crib-dock near Shaft 25, approved. ..... 325
Final sub-estimate for Shaft 19, approved..... 341
Final sub-estimate for Shaft 12C, approved..... 341
Of contract work for October, 1886, approved..... .... ..... 359
Chief Engineer to prepare and submit estimates, etc., of change of plan of Aqueduct through Gould's Swamp..... 386
Of contract work for November, 1886, approved.. ..... 396
Sub-estimate for Shaft 16½, approved..... 421

EXECUTIVE SESSION—

Provided for in By-laws..... ... 194
Of November 10, 1886; minutes of, read and approved..... ... 363

EXHIBITS—

Exhibits EE, GG and FF; plans for Sodom Dam submitted by Commissioner of Public Works... ..... .. 27
Exhibit FF; map of lands on East Branch of Croton River, transmitted by Commissioner of Public Works; referred to Committee on Construction and Chief Engineer..... 96
Exhibit II; map of land for new Gate House at 135th Street and Convent Avenue, transmitted by Commissioner of Public Works; referred to Committee on Construction and Chief Engineer..... 96
Exhibit FF; six property maps adopted by Commissioners, to be transmitted to Counsel to Corporation for filing; said counsel requested to take proceedings for appointment of Commissioners of Appraisal. 101
Exhibit II; six property maps adopted by Commissioners, to be transmitted to Counsel to Corporation for filing; said counsel to take proceedings for acquirement of land described on said maps..... 102
Exhibit JJ; plans for 135th Street Gate House, submitted by Commissioner of Public Works..... ..... 110
Exhibit MM; maps, plans, etc., for conduit or pipe lines between Gate Houses at 135th Street and at Central Park Reservoir; referred to Chief Engineer for examination and report..... 168
Exhibit FF; map of property required for double Reservoir I, showing proposed changes in highways bordering on said reservoir; the change in the location of the New York and New England Railroad, and the taking in fee of Parcels 80 and 81..... 249
Public hearing to be given on the above, Wednesday, September 8, 1886..... ..... ..... 250

EXPENDITURES—

t of; of Aqueduct Commissioners to June 30, 1886, referred to mittee of Finance and Audit..... 169

EXTENSION— PAGE

Of 15 days given to Brown, Howard & Co. for completing arrangements in relation to light and ventilation in tunnels..... 176

Of 5 days from November 30th, granted to Contractors Brown, Howard & Co. and John Brunton & Co., to discontinue use of gasoline torches on their work.... ..... ..... 383

(F)

FAGAN, JOHN—

Assigned as Laborer to Second Division..... 223

FAYE, THOMAS—

Communication from; in relation to blasting at St. Nicholas Avenue and 152d Street, referred to Chief Engineer..... 297

FEBRE, CHARLES J. (BOOKKEEPER)—

Request from; for increase of salary from $1,500 to $1,800 per annum, referred to Committee of Finance and Audit..... 429

FEE—

Report of Committee on Construction in relation to acquiring fee upon Parcels 74, 75 and 76 ..... 2

Counsel to the Corporation to take necessary proceedings to acquire above..... ..... ..... ..... 3

Public hearing for taking Parcels Nos. 71, 72 and 73 in fee in lieu of easement; also Parcel No. 6 in fee; also strip of land between Parcel 6 and the lands of the City at High Bridge Reservoir; also parcel of land on easterly side of 10th Avenue, opposite Shaft Site 27; also fee simple in lieu of an easement in perpetuity in all the lands within the lines of Convent Avenue, between 135th and 145th Streets, not now owned by the City, and same closed..... . ..... . 133

Report of Chief Engineer on fee and easement in lands upon line of Aqueduct, referred to Committee on Construction..... 145

Public hearing for taking Parcels Nos. 71, 72 and 73 in; reopened... 146

Proceedings to be initiated to acquire fee simple in nearly all lands on line of Aqueduct between Croton River and the 135th Street Gate House..... ..... 149

Public hearing on same..... ... ..... ... 162

Same continued..... .. ..... 165

Same continued and closed ..... ..... 171

Appointment of Committee to take into consideration question of lands on line of Aqueduct to be taken in..... ..... ..... 174

Commissioner of Public Works requested to submit plan of lands to be taken in; between 145th Street and Convent Avenue and 152d Street and Tenth Avenue..... 268

Committee on Real Estate report on taking the fee in lieu of an easement of lands in Westchester County, 24th Ward, and on Manhattan Island section.... ..... 286

FEE—(Continued.) PAGE
Public hearing for taking the fee simple in lands between 145th Street and Convent Avenue and 152d Street and Tenth Avenue; same closed..... 309
Committee on Real Estate directed to take necessary steps to acquire fee in lands required for construction of Shaft 15½..... 315
Commissioner of Public Works submits property maps of lands to be taken in; between 145th Street and Convent Avenue and 152d Street and Tenth Avenue; approved and adopted..... 327, 335

FERRER, CARLOS F.—
Reduced from Leveler to Rodman and assigned to Fourth Division... 224

FIELD, CYRUS W.—
Chief Engineer instructed to confer with the Corporation Counsel in relation to cave-in on lands of; and report..... 64
Agreement to be made with; for said lands..... 68
Secretary directed to have said agreement approved by Corporation Counsel "as to form," and executed with O'Brien & Clark..... 80

FILING—
Notice of; of Property Map No. 1, Parcels 74 to 76½, 24th Ward, in New York County..... 54
Notice of; of Property Map No. 2, of same, in Westchester County... 59
Of notice of lien by James Lunny for $112 against O'Brien & Clark... 87
Notice of; of Property Map No. 1 of lands required for dams and reservoir on East Branch of Croton River, in Putnam County.... 141
Notice of; of Property Map No. 1 of lands required for 135th Street Gate House, New York County..... 142
Notice of; of Property Map No. 2 of lands for 135th Street Gate House, in Westchester County..... 142
Secretary directed to transmit property maps of additional lands to be taken in fee at and near Shafts 25, 26 and 27, and upon the line of Convent Avenue to the Counsel to the Corporation for..... 185
Of notices of liens by John Kelly against O'Brien & Clark for work and materials furnished upon Sections 9 and B..... 187
Of notice of lien by Okonite Company against O'Brien & Clark for materials furnished for Section 12 and Shafts 20 and 21..... 217
Of notices of lien by P. Flanagan and P. J. Fleming against Sections 13 and 14..... 267
Of notice of lien by John Kelly against Shaft 19..... 267
Of notice of lien by the Burleigh Rock Drill Company against Section 8. 290
Secretary directed to transmit property maps of additional lands to be taken in fee simple in the 12th Ward of the City of New York to Counsel to the Corporation for..... 329
Notice of; of Map No. 1 of Final Plan Sheet No. 5 in New York County 343

FINAL ESTIMATE—
For culvert at Shaft 20, approved..... 294
For work and materials furnished by Charles Peterson on crib dock on westerly side of Harlem River (Voucher No. 2058), approved. 325

FINAL ESTIMATE—(Continued.) PAGE
For work and materials furnished by O'Brien & Clark on culvert across dumping grounds of Shaft 23 (Voucher No. 2057), approved ..... 325
For work and materials furnished by O'Brien & Clark on culvert across dumping grounds of Shaft 19, approved..... 341
For work by O'Brien & Clark at Shaft 12C, approved..... 341

FINAL PAYMENT—
For work done by Heman Clark on culvert across dumping grounds of Shaft 20, authorized..... 266
For work and materials furnished by Charles Peterson for crib-dock on westerly side of Harlem River near Shaft 24, authorized..... 299
For work and materials furnished by O'Brien & Clark for culvert across dumping grounds of Shaft 23, authorized..... 300
For work and materials furnished by O'Brien & Clark for culvert across dumping grounds of Shaft 19, authorized..... 335
For work and materials furnished by Coldwell, Wilcox & Co. for iron-work for blow-offs at Pocantico and Tibbitt's Brook, authorized.. 423

FINAL PLAN SHEETS—
No. 5½; approved and adopted..... 4
Secretary directed to transmit certified copies of same to Commissioner of Public Works and Corporation Counsel..... 5
5A and 5B; for additional lands at Shafts 25 to 27, and upon line of Convent Avenue, submitted by Commissioner of Public Works..156, 181
Above final plan sheets approved and adopted..... 181
No. 5C; for certain parcels of land in the 12th Ward, approved and adopted..... 316
Commissioner of Public Works to prepare and submit six similar property maps showing lands described by Final Plan Sheet No. 5C. ..... 317
No. 9A; lands at Shaft Site No. 8, approved and adopted.....359–60
3A; lands at Shaft Site 15½, approved and adopted..... 361

FINANCE AND AUDIT—(See "Committee of.")

FISH, HAMILTON, Jr. (Commissioner)—
Takes office as Aqueduct Commissioner under Chapter 337, Laws of 1886 ..... 114
Appointed on Committee to prepare and present amendments to By-laws..... 119
Elected member of Committee on Construction .....120, 194
Elected member of the Special Committee for taking additional estate in parcels on line of Aqueduct..... 180
Elected member of Committee on Real Estate..... 277
Declines to act as a member of the Committee on Real Estate..... 278
Offers resolution repealing Section 4 of Art. III. of By-laws; laid over. 362
Appointed on Committee to confer with Civil Service Commission on rules and regulations for appointment of Assistant Engineers, Rodmen and Chainmen..... 397
Presents amendment to Section 1 of Article II. of By-laws; laid over. 417

FITZGERALD, BERNARD— PAGE
Appointed Inspector of Masonry ..... 155
FITZGERALD, JOHN E.—
Appointed Inspector of Masonry..... 388
FITZGERALD, WILLIAM—
Appointed Inspector of Masonry..... 388
FLANAGAN, PATRICK—
Notice of lien filed by; against Sections 13 and 14, referred to Committee of Finance and Audit..... 267
FLEMING, P. J.—
Notice of lien filed by; against Sections 13 and 14, referred to Committee of Finance and Audit..... 267
FLETCHER, ROBERT J.—
Appointed Inspector of Masonry..... 388
FORM—
Of contracts, specifications and bonds for construction of Sections 12, 13 and 14, submitted by Commissioner of Public Works..... 1
Same approved and adopted..... 2
Of agreement for constructing Shaft 21½, adopted..... 97
Of proposal inviting bids for constructing Section 15 (135th Street Gate-House), approved..... 398
FOX, EDWARD—
Appointed Inspector of Masonry..... 342
FRANCIS, J. B.—
Name presented by Commissioner Baldwin for one of the experts to be selected on Quaker Bridge Dam..... 403
FRANK, LINCOLN—
Promoted from Chainman to Rodman..... 6
Reduced from Rodman to Chainman and assigned to Second Division. 223
Appointed Inspector of Masonry..... 388
FRANKLIN, THOMAS—
Granted indefinite leave of absence..... 348
Resolution on death of..... 368
FROST, FREDERICK W.—
Appointment of; as Assistant Engineer, referred back to the Committee on Construction with request that they take into consideration the name of E. Sherman Gould for such position..... 342
Recommendation of Committee on Construction in favor of appointment of; as Assistant Engineer, referred to Special Committee... 350
FTELEY, ALPHONSE—
Committee of Finance and Audit authorized to certify for payment monthly compensation of; as Deputy Chief Engineer..... 64
Resignation of; as Deputy Chief Engineer accepted..... 189
Appointed Consulting Engineer..... 189
Chief Engineer to call, to active duty..... 265
Salary fixed at $5,000 per annum ..... 265

(G)

GALLERY, JOHN— PAGE
Assigned as Laborer to First Division..... 222

GANONG, IRA—
Assigned as Chainman to First Division..... 222

GARDNER, JAMES T.—
Chief Engineer authorized to employ; to examine light and ventilation in Aqueduct tunnels..... 372

GASOLINE—
Resolution authorizing Chief Engineer to issue orders to Engineers and Contractors to prohibit the use of; lost..... 373
Chief Engineer to issue orders prohibiting use of; if advised by by Counsel to the Corporation that Commissioners have that power..... 378
Brown, Howard & Co. and John Brunton & Co. granted five days in which to discontinue use of; on their work..... 383

GATE HOUSES—
Commissioner of Public Works requested to submit plans, maps, etc., for Gate House near 135th Street and Convent Avenue; and one at Central Park Reservoir; also for a conduit between said Gate Houses.....43, 104
Commissioner of Public Works submits property maps (Exhibit II) of lands for 135th Street Gate House..... 96
Above maps adopted..... 102
Commissioner of Public Works submits general plan (Exhibit JJ) for Gate House at 135th Street and Convent Avenue, referred to Chief Engineer for examination and report..... 110
Inspector to be sent to Maine to inspect stone for new Gate House at Croton Dam..... 124
Counsel to Corporation gives notice of filing in New York County of Property Map No. 1, of lands required for; at 135th Street and Convent Avenue; also of Map No. 2 in Westchester County..... 142
Commissioner of Public Works requested to submit plans, etc., for; at north side of reservoir in Central Park..... 155
Detailed plans for; at 135th Street and Convent Avenue, referred to Committee on Construction for examination and report..... 156
Plans for iron-work of Saw Mill River Waste Weir Gate House, referred to Chief Engineer with power to advertise for bids for same..... 158
Plans for; at 135th Street and Convent Avenue, approved and adopted. 167
Plans for iron work of Saw Mill River Waste Weir Gate House to include portion of iron-work for Pocantico and Tibbitt's Brook Gate Houses..... 168
At Pocantico, Saw Mill River and Tibbitt's Brook; agreement to be made with Coldwell, Wilcox & Co. for iron-work required at..... 180

GATE HOUSES—(Continued.) PAGE
At 135th Street and Convent Avenue; contract drawings approved and $450 appropriated for photo-lithographing same..... 216
On Sections 1 and 15; appropriation of $400 for mounting and binding contract drawings of..... 314
President authorized to execute agreement with Coldwell, Wilcox & Co. for iron-work for Blow-offs and Waste Weirs at Pocantico, Saw Mill River and Tibbitt's Brook..... 347
On Section 1; Committee of Finance and Audit report progress on matter of part payment to Smith & Brown for stone delivered for..... 364
Committee of Finance and Audit report progress on matter of part payment to Coldwell, Wilcox & Co. for iron-work for Blow-offs, etc., at Pocantico, Saw Mill River and Tibbett's Brook Gate Houses..... 364
Committee of Finance and Audit report in favor of above part payment to Coldwell, Wilcox & Co..... 370
Committee of Finance and Audit report against above part payment to Smith & Brown; adopted..... 371
At 135th Street and Convent Avenue; form of proposal inviting bids for construction of; approved..... 398
Action of Secretary in advertising above; approved..... 420
Work done and materials furnished by Coldwell, Wilcox & Co. for iron-work for Blow-offs, etc., at Pocantico and Tibbitts' Brook; accepted, and final payment authorized..... 422

GILL, JOSEPH, SR. (SPECIAL INSPECTOR)—
Compensation fixed at $5 per day..... 160

GILLMORE, Q. A.—
Appointed one of Commission of Engineers to investigate charges against efficiency of Chief Engineer and of imperfect work on new Aqueduct..... 68

GLASKIN, EDWARD E.—
Communication from; in relation to construction of Sodom and Quaker Bridge Dams..... 15
Communication from; in relation to report of Chief Engineer on Quaker Bridge Dam, referred to Chief Engineer..... 66

GLATT, GEORGE C.—
Appointed Laborer on Fifth Division..... 80
Assigned to Fourth Division..... 224

GORMAN, JOHN—
Assigned as Laborer to Fifth Division..... 225

GOULD, E. SHERMAN—
Services of; as Division Engineer, dispensed with..... 202
Services of; as Division Engineer, extended to August 15th..... 206
Committee on Construction to take in consideration name of; in connection with position of Assistant Engineer..... 342

GOULD'S SWAMP— PAGE
Chief Engineer to prepare and submit estimates and details of change of plan of Aqueduct through ..... 386

GOWEN, CHARLES S.—
Assigned as Division Engineer to First Division..... 221

GRACE, WILLIAM R. (MAYOR)—
Elected President of Aqueduct Commissioners..... 28

GRACIE, CHARLES K.—
Appointed Assistant Engineer..... 246

GRAHAM, THOMAS—
Appointed Inspector of Masonry..... 388

GRAY, WILLIAM—
Assigned as Laborer to Second Division..... 223

GREENE, GEORGE S.—
Appointed one of Commission of Engineers to investigate charges against efficiency of Chief Engineer and of imperfect work on new Aqueduct..... 68
Name presented by Commissioner Baldwin for one of the experts to be selected on Quaker Bridge Dam..... 403

GROUB, JEFFERSON—
Elected Clerk Committee on Construction..... 280

(H)

HALE, JOSEPH W.—
Appointed Inspector of Masonry..... 388

HARLEM RIVER—
Report in relation to work on Section 12, and proposed changes in mode of connecting old and new systems of water supply at that place; action deferred..... 100
Matter of settlement of claim of Charles Peterson for $701.03 for expense of removing solid rock under, referred to Committee on Construction..... 326

HAVANAGH, JOHN T.—
Appointed Inspector of Masonry..... 231

HAWES, J. H.—
Appointed Laborer..... 342

HAYES, JAMES—
Appointed Laborer..... 382

HAYES, JOHN E.— PAGE
Appointed Chainman..... 382
Appointment as Chainman revoked..... 405
Appointed Axeman..... 407

HOLLAND, GEORGE O.—
Appointed Axeman..... 407

HORNE, ALFRED A.—
Resignation as Assistant Engineer accepted..... 208

HORNE, LOUTHER S.—
Assigned as Chainman to Fourth Division..... 224

HORSES--
No allowance to be made or bills paid for keep of horses belonging to members of Engineer Corps..... 259

HORTON, WILBUR E.—
Assigned as Rodman to Second Division..... 223
Transferred to Fourth Division..... 248

HORTON, WILLIAM—
Appointed Chainman..... 382
Appointment as Chainman revoked..... 405
Appointed Axeman..... 407

HUTTON, WILLIAM R.—
Employment of; authorized, to assist Chief Engineer during absence of Consulting Engineer Davis, at a salary of $6,000 per annum... 54

HYLAND, MICHAEL J.—
Appointed Inspector of Masonry..... 339

(I)

INCLINE SHAFT—
At or near Station 1267 on Section B authorized to be sunk..... 123

INSPECTORS—
Charles T. Kalmbach.... } Appointed Tunnel Inspectors.... ..... 6
William W. Wheeler.... }
Matter of pay of Inspectors and others during absence from sickness, referred to Committee of Finance and Audit..... 8
Committee on Construction recommend that the two Special Inspectors be paid $160 per month; not approved..... 16
Inspector to be sent to New England to inspect stone for new Gate Gate House at Croton Dam..... 124

INSPECTORS—(Continued.) PAGE

Charles E. Taft, John C. Dooley, Lawrence Manning, Wm. J. McKeon, John E. Lynch, James C. Ryan, Isaac Thomas, Bernard Fitzgerald, Thomas McCormick — Appointed ..... 155

Pay of; to be at the rate of $4 per day, and Special Inspectors $5 per day ..... 160

Chief Engineer authorized to detail; at brick yards and stone quarries ..... 188

Provided for in By-laws ..... 192

John F. O'Brien appointed ..... 220

Comptroller requested to forward their pay to them on the work ..... 226

William A. Shepard, John T. Havanagh, William C. Anderson — Appointed ..... 231

Resolution requesting Comptroller to forward pay of; to them on the work, reconsidered and laid on the table ..... 245

Frank E. Clark dismissed ..... 253

Charles E. Taft granted indefinite leave of absence, without pay ..... 258

Compensation fixed at $120 per month ..... 269

Gaylord Thompson, Henry H. Bowly, Michael J. Hyland, William H. Langler, Robert Montgomery, Collins Y. Peters — Appointed ..... 339

Gracie S. Roberts, James Quinn, Edward Fox — Appointed ..... 342

President to ask Civil Service Commission for sum of marks in experience and technical knowledge, in addition to general standing of; on list received from said Commission ..... 343

Daniel Murray appointed ..... 355

Resignation of Robert Montgomery accepted ..... 355

William Cushing appointed ..... 377

Recommendation of Chief Engineer that Inspectors be paid for overtime, referred to Committee of Finance and Audit ..... 385

President directed to call special meeting if report is received from Civil Service Commission with eligible list of ..... 387

George L. Tillotson, John F. Tierney, Francis O'Hare, Joseph W. Hale, Charles E. Richards — Appointed ..... 388

INSPECTORS—(Continued.) PAGE

William J. Daly
John Boyle
Robert J. Fletcher
Thomas Graham
William Klein
Lincoln Frank
William Fitzgerald
John P. Schermerhorn
John Toomey
John E. Fitzgerald
Benjamin H. Brevoort
James O'Neill
Frank S. Whittier
Joseph R. Swain
John Donnelly
} Appointed ..... 388

No allowance to be made for overtime ..... 391

C. W. Atkins appointed ..... 422

INSTRUMENTS—

Appropriation of $1,250 for ..... 84

Appropriation of $250 for Transit ..... 266

Appropriation of $500 for 5 disc-diagram machines and one level ..... 312

Appropriation of $400 for ..... 314

Appropriation of $150 for ..... 326

Appropriation of $100 for 12 disc-rods ..... 359

IRON-WORK—

Plans for; for Saw Mill River Waste Weir Gate House, referred to Chief Engineer with power to advertise for bids ..... 158

Plans for; for Saw Mill River Gate House, to include portion of iron-work for Pocantico and Tibbett's Brook Gate Houses ..... 168

For Waste Weir Gate Houses at Pocantico, Saw Mill River and Tibbett's Brook; agreement to be made with Coldwell, Wilcox & Co. for same for $2,333 ..... 180

President authorized to execute above agreement ..... 347

Reports of Committee on Construction in regard to paying a portion of bills for iron-work and cut stone, referred to Committee of Finance and Audit ..... 350

Committee of Finance and Audit report progress on matter of 50 per cent. payment to Coldwell, Wilcox & Co. on their contract for; at Saw Mill River, Pocantico and Tibbitt's Brook Gate Houses ..... 364

Committee of Finance and Audit recommend above payment; adopted. 370

Matter of acceptance of work, etc., furnished by Coldwell, Wilcox & Co., under their contract for; for blow-offs and waste weirs at Saw Mill River, Pocantico and Tibbitt's Brook, referred to Committee of Finance and Audit ..... 411

Above work accepted and final payment authorized ..... 422

(J)

JEROME PARK RESERVOIR— PAGE
Chief Engineer requested to report upon surveys and soundings of; and whether the Engineer Corps engaged thereon cannot be disbanded ..... 140
Report of Chief Engineer in relation to surveys and the Engineer Corps upon ..... 145
Engineer Corps and Laborers engaged on survey of; suspended until required for other work ..... 145
Chief Engineer reports suspension of Engineer Corps and Laborers engaged on survey of ..... 151
Chief Engineer to report on suspension of force at work on ..... 206

JOHNSTON, E. D.—
Services as Assistant Engineer to be dispensed with on August 15th.. 220
Request of Chief Engineer that the services of; be retained until September 1st, not granted ..... 233

(K)

KALMBACH, CHARLES T.—
Appointed Tunnel Inspector ..... 6
Compensation fixed at $5 per day ..... 160

KELLOGG, A. W.—
Assigned as Chainman to First Division ..... 222

KELLY, JOHN—
Files notices of lien for $1,000 and $1,020 against O'Brien & Clark... 187
Files notice of lien against Shaft 19; referred to Committee of Finance and Audit ..... 267
Files notice of lien for $1,020 against Section 9; O'Brien & Clark.... 366

KELLY, WILLIAM D.—
Certified to Civil Service for examination for promotion to Assistant Engineer ..... 406

KENNEDY, MARTIN—
Appointed Rodman ..... 41

KENNEDY, SARSFIELD—
Appointed Chainman ..... 220
Assigned to Third Division ..... 223

KLEIN, WILLIAM—
Appointed Inspector of Masonry ..... 388

KNAPP, SAMUEL T.—
Warrant of Commissioners of Appraisal for $11,672.36 for lands taken from ..... 111

(L)

LABORERS— PAGE

Request of Chief Engineer for appointment of two Laborers for Division No. 6, referred to Committee on Construction..... 72

Arthur B. Satterlee ..... } Appointed ..... 75
John Surrigan..... }

George C. Glatt, appointed..... 80

Chief Engineer authorized to employ; for Division No. 2..... 123

Engaged on surveys, etc., upon Jerome Park Reservoir, suspended until required for other work..... 145

Chief Engineer reports above suspension..... 151

Chief Engineer authorized to employ; in making soundings and test pits at Sodom Dam..... 253

J. H. Hawes, appointed..... 342

William Whalen..... }
Peter Nevin..... }
William McCormick..... } Appointed..... 382
Michael Corkey..... }
James Hayes..... }
John T. Ward..... }

William McCormick, resignation accepted..... 416

William P. O'Mara, appointed..... 416

LAMB, A. J.—

Assigned as Rodman to Second Division..... 223

LANDS—

Counsel to the Corporation requested to acquire the fee in Parcels 74, 75 and 76, owned by Samuel T. Knapp, Van Courtlandt estate and James M. McLean..... 3

Agreement with Jeremiah Mahoney for lands at Pocantico Cut and Blow-off, for $2,000, approved..... 43

Secretary to transmit same to Board of Estimate and Apportionment for approval..... 44

President and Vice-President to execute same..... 52

Secretary directed to furnish Commissioners of Appraisal for Westchester County details of all agreements made by Commissioners with owners of lands on line of new Aqueduct, and nature of right acquired by City under same..... 61

Matter of temporary use of lands of Cyrus W. Field at the cave-in south of Shaft 13..... 68

William H. De Forest confirms agreement for use of his lands on Convent Avenue, 140th and 141st Streets..... 72

Secretary directed to have agreement for use of lands of Cyrus W. Field for repairing cave-in south of Shaft 13 approved by Counsel to Corporation and executed by O'Brien & Clark and the Commissioners..... 80

LANDS—(Continued.) PAGE

Matter of revocation by Board of Estimate and Apportionment of agreement made with New York Life Insurance Company for lands at Greenburgh, referred to Committee of Finance and Audit..... 87

Remonstrance of August Belmont against taking lands in Jerome Park..... 88

Joseph P. Disbrow claims compensation for easement rights through his lands..... 91

Mrs. Janet Sandford requests that a parcel of land belonging to her at Shaft 19 be taken by Commissioners..... 94

Commissioner of Public Works presents maps of lands for East Branch Reservoir and 135th Street Gate House..... 96

Report of Secretary on lands on Convent Avenue between 137th and 145th Streets, referred to Committee on Construction..... 97

Report of Committee of Finance and Audit in relation to lands of New York Life Insurance Company at Greenburgh..... 99

Property maps of lands for East Branch Reservoir adopted..... 101

Property maps of lands for 135th Street Gate House adopted..... 102

Report of Chief Engineer in relation to lands of Mrs. Janet Sandford at Shaft 19..... 106

Claim of Joseph P. Disbrow for compensation for use of his lands, referred to Commissioners of Appraisal..... 112

Matter of additional lands to be taken near Shafts 25, 26 and 27; also fee in all lands on Convent Avenue between 135th and 145th Streets..... 115–6

Mrs. Janet Sandford withdraws application for taking her land at Shaft 19..... 118

Joseph P. Disbrow revokes permission to occupy his lands..... 125

Counsel to Corporation requested to take steps for amending proceedings for taking Parcel 72 (lands of Joseph P. Disbrow)..... 129

Public hearing for taking additional lands (Parcels 71, 72 and 73); also Parcel 6; two pieces near Shafts 26 and 27, and the fee in all lands on line of Convent Avenue, between 135th and 145th Streets..... 133

Committee on Construction to consult with Counsel to Corporation in relation to course of action to be taken to obtain title of; for new Aqueduct, from line between Westchester and New York Counties, north to Croton Lake..... 137

Report of Chief Engineer on fee and easement in; upon line of Aqueduct; referred to Committee on Construction..... 145

Public hearing reopened for taking Parcels 71, 72 and 73, and Joseph P. Disbrow heard..... 146

Proceedings to be initiated to acquire fee simple in nearly all lands between Croton River and the 135th Street Gate House on line of Aqueduct..... 149

Commissioner of Public Works submits plans, modifying plans heretofore adopted, including additional lands at or near Shafts 25, 26 and 27..... 150

LANDS—(Continued.) PAGE

Final Plan Sheets 5A and 5B and property maps for additional lands to be taken at Shafts 25 to 27, and on line of Convent Avenue, referred to Committee on Construction..... 156

Public hearing for the acquirement of the fee simple in lieu of an easement in all the lands on the line of the Aqueduct from Croton Lake to 135th Street Gate House..... 162

Public hearing on above continued..... 165

Public hearing on above continued and closed..... 171

Appointment of Committee to take into consideration question of lands to be taken in fee simple on line of Aqueduct..... 174

Final Plan Sheets 5A and 5B for additional lands at Shafts 25, 26 and 27 and upon the line of Convent Avenue, adopted..... 181

Secretary directed to furnish list of parties from whom lands have been purchased by private negotiations..... 227

Report of Secretary on above..... 234

Secretary directed to furnish list showing names of all persons with whom negotiations are being had for purpose of purchasing lands for Aqueduct purposes ..... 246

O'Brien & Clark notify Commissioners of purchase of; for shaft site between Shafts 16 and 17; referred to Committee on Construction..... 257

Commissioner of Public Works requested to submit plan showing lands to be taken in fee between 145th Street and Convent Avenue and 152d Street and 10th Avenue..... 268

Chief Engineer to have lands required for additional Shaft 15½ surveyed and mapped..... 283

Report of Committee on Real Estate on the taking the fee in lieu of an easement of lands on line of Aqueduct in Westchester County, 24th Ward and on Manhattan Island section ..... 286

Plan of; on line of Aqueduct between 145th and 152d Streets, submitted by Commissioner of Public Works; referred to Chief Engineer and Committee on Real Estate. ..... 296

Public hearing for taking the fee simple in lands between 145th Street and Convent Avenue, and 152d Street and Tenth Avenue, same closed..... 309

For Shaft 13½ and dumping grounds of same; to be purchased. ... 313

Plan of; required for construction of Shaft 15½, approved; and Committee on Real Estate directed to take necessary steps to acquire the fee in same..... 315

Final Plan Sheet No. 5c; lands between 145th Street and Convent Avenue, and 152d Street and Tenth Avenue; adopted..... 316

Commissioner of Public Works to prepare and submit six similar property maps showing lands described by Final Plan Sheet No. 5c..... 317

Commissioner of Public Works submits above property maps as requested; same approved and adopted, and Secretary directed to transmit same to Counsel to Corporation for filing.....327, 335

LANDS—(Continued.) PAGE
Committee on Real Estate to furnish information relative to negotiations which are being made for the purchase of ..... 331
Report of Committee on Real Estate on above ..... 334
Committee on Real Estate report in relation to taking; for Shaft sites Nos. 8 and 15½ ..... 346
Public hearing to be given on above on November 10, 1886 ..... 347
Public hearing on lands to be taken for Shaft Site No. 8; adjourned to November 12, 1886 ..... 352–4
Public hearing on lands to be taken for Shaft Site No. 15½; continued and closed ..... 352–4
Public hearing on lands to be taken for Shaft Site No. 8, continued and closed ..... 357–9
Final Plan Sheet No. 9A, lands required at Shaft Site No. 8, approved and adopted; and Commissioner of Public Works requested to prepare and submit property maps of same ..... 359–60
Final Plan Sheet No. 3A; lands required at Shaft Site 15½ approved and adopted; Commissioner of Public Works requested to prepare and submit property maps of same ..... 361
Commissioner of Public Works submits six similar property maps of lands required for Shaft Sites Nos. 8 and 15½ ..... 365
Same approved and adopted ..... 365–6
Counsel to the Corporation to take the required proceedings to acquire the lands described on above maps ..... 365–6
To be taken for Shaft 13A ..... 376
Committee on Real Estate report on result of negotiations for lands required for Shaft Site 15½ ..... 392
President and Secretary authorized to accept conveyance from Joseph P. Disbrow for use of his lands in 24th Ward, and execute agreement of submission of his claims to Commissioners of Appraisal .. 409

LANGLER, WILLIAM G.—
Appointed Inspector of Masonry ..... 339

LARNED, E. S., Jr.—
Assigned as Rodman to First Division ..... 222

LAWS (State of New York)—
Of 1886, Chapter 337, amending Laws of 1883, Chapter 490; Oliver W. Barnes, Edgar L. Ridgway and Hamilton Fish, Jr., take office as Aqueduct Commissioners under ..... 114

LEASE—
President and Vice-President authorized to execute lease with David W. Bishop of "the first flat," 269 W. 125th Street, for two years from May 1, 1886, at $420 per annum ..... 80
President and Vice-President authorized to execute leases authorized by Commissioners for buildings rented for use of Engineers ..... 151

LEAVE OF ABSENCE— PAGE

Granted Joseph P. Davis, Consulting Engineer, for three months, without pay..... 44
Granted Charles E. Taft, Inspector of Masonry, without pay..... 258
Granted Thomas Franklin, Assistant Engineer, extended indefinitely. 348
Granted. A. A. Aguirre, Draughtsman, for four months, without pay. 391

LEGISLATIVE BILLS—

Copies of; Session 1885–1886, to be furnished by James H. Caulfield for $50..... 20
Secretary to arrange with James H. Caulfield for furnishing, for Session of 1886–1887, for $50..... 378

LEGISLATURE (State of New York)—

Copies of all bills presented to (Session, 1885–1886); to be furnished by James H. Caulfield for $50..... 20
Certified copy of Chapter 337, Laws of 1886, amending Chapter 490, Laws 1883, received and filed..... 114
Secretary to arrange with James H. Caulfield for furnishing all bills presented to; Session, 1886–1887, for $50..... 378
Resolution requesting Counsel to Corporation to prepare bill for introduction in; authorizing change of location of N. Y. & N. E. R. R. near Sodom; laid over.....429–30

LEVELER—

Arthur P. Satterlee..... } Promoted to..... 6
Louis P. De Luze..... }
Alfred H. Renshaw..... } Honorably discharged..... 233
Louis P. De Luze..... }

LEWIS, DAVID B.—

Resignation as Transitman accepted..... 175
Matter of payment to; for one and a half months' service; referred to Committee of Finance and Audit..... 248

LIEN—

Notice of; by James Lunny for $112, against O'Brien & Clark; referred to Committee of Finance and Audit..... 87
Notices of; filed by John Kelly against O'Brien & Clark for $1,000 and $1,020, for work and materials on Sections 9 and B..... 187
Notice of; filed by Okonite Company against O'Brien & Clark for $354.12, for materials furnished for Section 12 and Shafts 20 and 21; referred to Committee of Finance and Audit..... 217
Notices of; filled by P. Flanagan and P. J. Fleming against Sections 13 and 14; referred to Committee of Finance and Audit..... 267
Notice of; filed by John Kelly against Shaft 19; referred to Committee of Finance and Audit..... 267
Notice of; filed by the Burleigh Rock Drill Co. for $1,130, against Section 8..... 290
Notices of; filed by Repauno Chemical Company against Sections A, B and 9..... 330

LIEN—(Continued.) PAGE

Notice of; filed by Newark Lime and Cement Company for $300, against Section 7 ..... 336

Notice of; filed by John Kelly against O'Brien & Clark, Section 9, for $1,020 ..... 366

LIGHT AND VENTILATION—

Chief Engineer to investigate and report whether requirements of Section 29 of contracts respecting; are complied with by all Contractors; and hereafter to require contractors to comply with same ..... 138

Chief Engineer reports concerning past observance of requirements of contracts by contractors in relation to ..... 151

Brown, Howard & Co. granted an extension of 15 days for completing arrangements for ..... 176

Communication of Chief Engineer in relation to ventilating and lighting tunnels of Aqueduct, referred to Counsel to the Corporation; and Chief Engineer authorized to take such action as he deems proper in the premises ..... 231

Opinion of Counsel to the Corporation regarding power of Chief Engineer to provide proper ..... 251

Chief Engineer reports progress made in; for Aqueduct tunnels ..... 261

Chief Engineer directed to advertise for proposals for necessary apparatus to provide; in Aqueduct tunnels ..... 262

Report of Chief Engineer on; approved ..... 268

Report of Committee on Construction on; taken up, discussed and laid on the table ..... 351

Orders of Chief Engineer directing Brown, Howard & Co., and John Brunton & Co., to place electric lights and power blowers on their work to be enforced ..... 367

Counsel to the Corporation requested to give his opinion as to the best means to be adopted to compel the contractors to provide necessary lighting and ventilating apparatus ..... 368

Opinion of Counsel to the Corporation in relation to above ..... 372

Chief Engineer authorized to employ James T. Gardner and William McQuale to examine light and ventilation in Aqueduct tunnels ... 372

Chief Engineer to report on ..... 374

John Brunton & Co, contractors, notify Commissioners that they have contracted for a Brush electric light plant for their work ... 378

Rossiter W. Raymond appointed as one of the experts to examine light and ventilation in Aqueduct tunnel ..... 397

Report of experts on; referred to Committee on Construction ..... 428

LINE—

Of Aqueduct from Croton Lake to Central Park divided into five divisions ..... 214

LINING—

Report of Chief Engineer on cost per mile of lining sides and roof of Aqueduct, laid over ..... 7

LINING—(Continued.) PAGE
Report of Committee on Construction in relation to lining Aqueduct; action deferred..... 17
Communication from Chief Engineer in relation to lining Aqueduct at Shafts 5 and 9..... 42
Chief Engineer directed to order Aqueduct lined with masonry throughout its entire length..... 57
Request of Mr. James O'Friel for an examination of a new material for arches, etc., for; referred to Chief Engineer..... 152

LIVINGSTONE, DUNCAN McRAE—
Appointed Tracer; compensation $40 per month..... 30
Promoted from Tracer to Chainmann and assigned to Third Division. 223

LOCKWOOD, J. A.—
Promoted from Transitman to Assistant Engineer and assigned to Second Division..... 222

LULLEY, JULIUS C.—
Applies for position of Auditor..... 76
Appointed Auditor..... 82

LUNNY, JAMES—
Notice of lien filed by; for $112, referred to Committee of Finance and Audit..... 87

LYNCH, CORNELIUS J.—
Appointed Chainman..... 220
Assigned to Third Division..... 223

LYNCH, JOHN E.—
Appointed Inspector of Masonry..... 155

(M)

McBEAN, DUNCAN D.—
Communication from; referred to Committee on Construction..... 121

McCARTY, JAMES—
Promoted from Laborer to Chainman..... 6
Assigned to Fifth Division..... 225

McCORMICK, THOMAS—
Appointed Inspector of Masonry..... 155

McCORMICK, WILLIAM—
Appointed Laborer..... 382
Resignation accepted..... 416

McCULLOH, JAMES W.— PAGE
Removed from position of Secretary of Aqueduct Commissioners..... 209
Employed as Special Assistant to the Chief Engineer at $6,000 per annum ..... 211
Report of Committee on Real Estate recommending that term of service of; be extended to January 1, 1887; action deferred..... 295
Above report taken up and laid over two weeks ..... 304
Special Committee appointed to examine character and value of services of..... 306
Elected temporary Secretary of Committee on Real Estate ..... 317
Time for determination of term of service of; postponed two weeks..329, 334
Secretary directed to furnish each member of the Commission with a copy of the testimony taken by Special Committee appointed to inquire into character and value of services, etc., performed by... 379
Report of above committee..... 393
Services continued as Special Assistant to Chief Engineer at $5,000 per annum..... 393

McCULLOH, WALTER—
Assigned as Assistant Engineer to Fourth Division ..... 224
Assigned to special duty in making soundings and examinations at Sodom Dam..... 248

McCUSKER, JOSEPH—
Appointed Axeman..... 407

McINTYRE, J. B. (Division Engineer)—
Assigned to Fourth Division..... 221

McKEON, JOHN—
Assigned as Chainman to Fifth Division..... 225

McKEON, WILLIAM J.—
Appointed Inspector of Masonry..... 155

McKIM, ROBERT A.—
Promoted from Chainman to Rodman..... 6

McLEAN, J. M.—
Warrant of Commissioners of Appraisal for lands taken from; for $220.23..... 111

McQUALE, WILLIAM—
Chief Engineer authorized to employ; to examine light and ventilation in Aqueduct tunnels..... 372

MAHONEY, JEREMIAH—
Making of agreement with; for land at Pocantico cut and blow-off for $2,000 approved; Secretary directed to submit same to Board of Estimate and Apportionment for approval ..... 44
Board of Estimate and Apportionment approve same..... 52
President and Vice-President authorized to execute agreement with; for lands at Pocantico River Blow-off for $2,000..... 52

MANHATTAN ISLAND SECTION— PAGE

Committee on Real Estate report on taking the fee in lieu of an easement of lands on... 286

Final Plan Sheet No. 5C of certain lands in 12th Ward, on, approved and adopted... 316

Property maps of lands to be taken in fee at 145th Street and Convent Avenue, and at 152d Street and 10th Avenue on; submitted by Commissioner of Public Works; approved and adopted.....327, 335

MANNING, LAWRENCE—

Appointed Inspector of Masonry... 155

MAPS—(See also "Property Maps" and "Plans")—

Modified plans and maps of Aqueduct from City line south to Mosholu Avenue; also Parcels 74½ and 76½, adopted... 4

Commissioner of Public Works requested to furnish additional plans and maps for the construction of Sodom Dam and Reservoirs.... 16

Chief Engineer directed to furnish maps and drawings for Commissioners of Appraisal for Westchester County... 18

Commissioner of Public Works requested to prepare and submit additional maps and plans for construction of Sodom Dam and Reservoirs; with six similar property maps... 37

Commissioner of Public Works requested to prepare and submit plans, maps, etc., for Gate House at 135th Street and Convent Avenue, and one at Central Park Reservoir, and conduit between said Gate Houses... 43

Amended Property Maps, No. 1 (Parcels 74 and 76½), filed in office of Register of City and County of New York; Nos. 4, 5 and 6 delivered to Commissioners of Appraisal... 54

Property maps of lands for East Branch Reservoir and 135th Street Gate House, submitted by Commissioner of Public Works..... 96

Same approved and adopted... 101

Plans and estimates of Commissioner of Public Works relative to new Gate House at 135th Street and Convent Avenue; referred to Chief Engineer for examination and report... 110

Chief Engineer directed to have certificates, maps and plans made showing modification to be made in line of Aqueduct at Shaft Site No. 8... 112

Commissioners direct further surveys, maps and plans to be made of proposed changes in the work at Shafts 25 and 26... 113

Plans, estimates and specifications for conduit or pipe lines between 135th Street and Central Park Gate Houses; referred to Chief Engineer for examination and report... 168

Showing proposed changes in location of highways bordering on double Reservoir I; also change in location of the New York and New England Railroad, and the taking in fee of Parcels 80 and 81 (Exhibit FF), submitted by Commissioner of Public Works..... 249

Commissioner of Public Works to prepare and submit six similar property maps showing lands described by Final Plan Sheet No. 5C (between 145th Street and Convent Avenue, and 152d Street and 10th Avenue)... 317

MAPS—(Continued.) PAGE
Commissioner of Public Works submits above property maps as requested; same approved and adopted, and Secretary directed to transmit same to Counsel to the Corporation for filing.....327, 335
No. 1 of Final Plan Sheet No. 5 filed in New York County..... 343
Final Plan Sheet No. 9A, lands required at Shaft Site No. 8, approved and adopted; and Commissioner of Public Works requested to submit property maps of said lands.....359–60
Final Plan Sheet No. 3A, lands required at Shaft Site 15¼, approved and adopted; Commissioner of Public Works requested to prepare and submit property maps of same..... 361
Commissioner of Public Works submits above property maps; same approved and adopted..... 365–6
Communication of Chief Engineer asking an appropriation of $498 for land maps of lands required for right of way between Croton Dam and Harlem River, referred to Committee of Finance and Audit.. 383
Above appropriation made..... 390

MARRIN, GEORGE C.—
Promoted from Chainman to Rodman..... 6
Reduced from Rodman to Chainman..... 223

MARTIN, R. K.—
Name presented by Commissioner Baldwin as one of the experts to be selected on Quaker Bridge Dam ..... 403

MASONRY—
Chief Engineer directed to order Aqueduct lined with; throughout its entire length..... 57
Appropriation of $100 for models of difficult construction in; at intersection of shafts and Aqueduct arch..... 314
Chief Engineer to report increased cost of solid masonry for entire length of Aqueduct, and as to the necessity of putting solid masonry over arch of tunnel..... 386
Communication from C. R. Cummings, of Brown, Howard & Co., requesting that solid masonry be put in over the arch of tunnel, referred to Committee on Construction..... 387

MEDICAL SOCIETY OF CITY AND COUNTY OF NEW YORK—
Communication from; in relation to construction of Sodom and Quaker Bridge Dams..... 15

METROPOLITAN TELEPHONE AND TELEGRAPH COMPANY—
Communication from; making application for furnishing a telephone service, referred to Committee on Construction ..... 330

MILLARD, CURTIS—
Assigned as Transitman to Fourth Division to temporarily perform duties of W. McCulloh, transferred to Sodom Dam ..... 248

MILLER, J. IMBRIE— PAGE
Appointed Principal Assistant Engineer..... 201
Salary fixed at $400 per month..... 202
Placed in charge of work from Shaft 15 to Croton Lake..... ..... 215

MINORITY REPORT—
Of Commissioner Ridgway in relation to compensation of employees in Secretary's office..... 169

MITCHELL, W.—
Appointed Chainman..... 382
Appointment as Chainman revoked..... .... 405

MODELS—
Of difficult constructions in masonry at intersection of shafts with Aqueduct arch; appropriation $100 for..... 314

MONTGOMERY, ROBERT—
Appointed Inspector of Masonry..... ..... 339
Resignation accepted..... 355

MONTHLY ESTIMATES—(See "Estimates.")

MONUMENTS—
Communication from Counsel to Corporation in reference to placing; on property required for Sodom Dam and Reservoir, referred to Committee on Real Estate..... 411

MOORE, ROBERT H.—
Resignation as Assistant Engineer, to take effect August 15, 1886, accepted ..... ..... 225
Resignation as Assistant Engineer, to take effect September 1, 1886, accepted ..... 252

MORRIS, LEWIS G.—
Communication from; in relation to accidents on line of Aqueduct ... 52
Heard in relation to claim of Joseph P. Disbrow.....107, 118

MORRIS, S. F.—
Assigned as Assistant Engineer to Fourth Division. ..... 224
Assigned as Assistant Engineer to North Section, Fourth Division.... 248

MORRISON, EDWARD—
Heard in relation to taking the fee in certain lots in the 12th Ward... 164

MURRAY, DANIEL—
Appointed Inspector of Masonry..... 355

MUSCOOT DAM AND RESERVOIR— PAGE
Public hearings on.....10, 13, 25, 33
Resolution fixing January 27th as the date of public hearing on; action deferred..... 15
Public hearings in relation to; to be finally closed January 27th..... 28
Public hearing finally closed ..... 37
Public hearing in relation to; to be resumed on June 23d..... 140
Consideration of proposed construction of; adjourned to July 1st ..... 152
Report of Committee on Construction in reference to the immediate construction of; referred back to said Committee ..... 340
Committee on Construction to report on or before December 1, 1886, in regard to..... 348

(N)

NEVIN, PETER—
Appointed Laborer..... 382

NEWARK LIME AND CEMENT COMPANY—
File lien against O'Brien & Clark for $300, for materials furnished on Section 7..... 336

NEWTON, JOHN, C. E.—
Appointed one of Commission of Engineers to investigate charges made against efficiency of Chief Engineer and of imperfect work on new Aqueduct..... 68
Elected member of Committee on Construction..... 277
Appointed on Committee to examine character and value of services of James W. McCulloh..... 306
Appointed on Committee to confer with Civil Service Commission on rules and regulations for appointment of Assistant Engineers, Rodmen and Chainmen ..... 397

NEW YORK LIFE INSURANCE COMPANY—
Notice of revocation by Board of Estimate and Apportionment of approval of agreement for lands in Town of Greenburg, between Aqueduct Commissioners and; referred to Committee of Finance and Audit..... 87
Report in relation to lands of; at Ardsley, ordered placed on file..... 99
Secretary directed to transmit copy to Board of Estimate and Apportionment..... 100
Committee of Finance and Audit discharged from further consideration of the matter..... 100

NEW YORK AND NEW ENGLAND RAILROAD—
Commissioner of Public Works submits map (Exhibit FF) showing the change in location of; at Sodom Dam..... 249
Public hearing on above to be given Wednesday, September 8, 1886.. 250

NEW YORK AND NEW ENGLAND RAILROAD—(Continued.) PAGE
Public hearing on above and same closed..... 255
Report of Committee on Real Estate upon matters connected with the relocation of; at Sodom..... 407
Committee on Real Estate to complete details necessary for carrying out proposed settlement with; in reference to change of location of their railroad near Sodom..... 418
Committee on Real Estate report progress in negotiations with..... 427
Resolution requesting Counsel to Corporation to prepare bill for introduction in Legislature authorizing change in location of; near Sodom, laid over .....429–30

NICHOLAS, R. C.—
Assigned as Rodman to Third Division..... 223

NOONEY, CHARLES B.—
Matter of appointment as Chainman, referred to Committee on Construction..... 209
Appointed Chainman..... 217
Assigned to Fourth Division..... 224
Resignation accepted..... 389

(O)

O'BRIEN, JOHN F.—
Appointed Inspector of Masonry..... 220

O'BRIEN & CLARK (Contractors)—
Contract for culvert at Shaft 19, awarded to..... 9
Secretary to prepare agreement with; for same..... 9
President and Vice-President authorized to execute same..... 12
Contract for Section 12 awarded to..... 40
Same ordered to be executed with..... 46
Agreement to be made with; for work at cave-in south of Shaft 13; cost not to exceed $5,000..... 68
Secretary directed to have agreement with Cyrus W. Field, for use of his lands at the cave-in south of Shaft 13, approved "as to form" by Counsel to Corporation, and executed with..... 80
Notice of lien for $112, filed by James Lunny against; referred to Committee of Finance and Audit..... 87
Request from President of Board of Education of City of Yonkers that explosives in that city be removed, referred to Chief Engineer for conference with..... 88
Request to remove stone from Shaft 18, referred to Committee on Construction..... 119
Give notice that they will hold the City liable for damages for delay in payment of monthly estimates.....124, 152, 188
Ask authority to sink additional shafts between Shafts 13 and 14, and 15 and 16, referred to Chief Engineer for investigation and report. 131

O'BRIEN & CLARK—(Continued.) PAGE
Contract for Shaft 12C awarded to..... 186
Notices of liens for $1,000 and $1,200, filed by John Kelly against; for work and materials on Sections 9 and B..... 187
Communication from; in relation to closing up Sedgwick Avenue, referred to Committee on Construction..... 187
Notice of lien for $354.12 filed by the Okonite Company against; for materials for Section 12 and at Shafts 20 and 21..... 217
Complain of delay in the payment of estimates.....251, 297
Notify Commissioners of purchase of land for shaft site between Shafts 16 and 17..... 257
Contract for Shaft 16½, awarded to..... 284
Work in constructing culvert at Shaft 23 accepted, and final payment authorized..... 300
Final sub-estimate for above approved..... 325
Execution of contract for Shaft 12C, by sureties of; waived..... 327
Notice of lien for $6,050.85, filed by Repauno Chemical Company against; for materials furnished for Section 8..... 330
Work in constructing culvert at Shaft 19 accepted, and final payment authorized..... 335
Notice of lien for $300, filed by Newark Lime and Cement Company against; for materials furnished on Section 7..... 336
Final sub-estimate for culvert at Shaft 19 approved..... 341
Sub-estimate for Shaft 12C approved..... 341
Execution of contract for Shaft 16½ by sureties of; waived..... 362
Notice of lien for $1,020, filed by John Kelly against..... 366
Sub-estimate for Shaft 16½ approved..... 421

OFFICE BOY—
Arthur B. Sinclair, appointed..... 141

OFFICERS—
Election of; for 1886..... 28
Committee on Construction report election of..... 280

OFFICES—
President and Vice-President authorized to execute lease with David W. Bishop for "First Flat, No. 269 West 125th Street, for two years from May 1, 1886, at $420 per annum"..... 80
Chief Engineer authorized to rent office near High Bridge at rate of $15 per month, and have built temporary office at 149th Street and Convent Avenue, at acost not to exceed $250..... 110
President and Vice-President authorized to execute leases authorized by Commissioners for buildings rented for use of Engineers..... 151
Of Commissioners to be closed on October 28, 1886, in honor of the celebration of the unveiling of the Statue of Liberty..... 344

O'FRIEL, JAMES—
Asks examination of new material for arches, etc., for lining of Aqueduct, referred to Chief Engineer..... 152

OGDEN, THOMAS L. PAGE
Claim of $389.50, for services in taking fee in lands of Van Courtlandt estate, referred to Committee of Finance and Audit..... 159

O'HARE, FRANCIS—
Appointed Inspector of Masonry..... 388

OKONITE COMPANY—
Notice of lien for $354.12, filed by; against O'Brien & Clark for materials furnished on Section 12 and at Shafts 20 and 21..... 217

OLNEY, GEORGE R.—
Promoted from Transitman to Assistant Engineer and assigned to Third Division ..... 223
Assigned to Middle Section, Fourth Division..... 248

O'MARA, WILLIAM P.—
Appointed Laborer ..... 416

O'NEILL, JAMES—
Appointed Inspector of Masonry..... 388

OPINION—
Of Counsel to the Corporation adverse to jurisdiction asserted by Commissioners of Accounts in relation to accidents..... 53
Of Counsel to the Corporation in regard to changes in method of timbering in tunnels ..... 53
Of Counsel to the Corporation in relation to removal of air box on Section 2, Croton Dam ..... 76
Of Counsel to the Corporation in relation to right of Comptroller to make necessary examinations of Contractors' monthly estimates.. 218
Of Counsel to the Corporation regarding power of Chief Engineer to provide adequate light and ventilation..... 251
Of Counsel to the Corporation in relation to appointment of Secretary of Committee on Real Estate, read and referred to the Special Committee appointed to inquire as to the value of services performed by James W. McCulloh..... 343
Of Counsel to the Corporation having reference to power of Commissioners to compel contractors to provide necessary lighting and ventilating apparatus..... 372

(P)

PARCELS—
Nos. 74, 75 and 76. Committee on Construction report in relation to acquiring fee upon..... 2
Nos. 74, 75 and 76. Corporation Counsel requested to take legal steps to amend previous proceedings, and to acquire fee of..... 3
Six similar property maps of above adopted. ..... 17
Notice of filing of same in New York County..... 54
Notice of filing of same in Westchester County..... 59
Nos. 71, 72 and 73. Public hearing..... 133

PARCELS—(Continued.) PAGE
No. 6. Public hearing ..... 133
Public hearing on above resumed and closed ..... 141
Nos. 71, 72 and 73. Public hearing on, reopened and Mr. Disbrow heard, and public hearing closed ..... 146
Additional Parcels 80 and 81, Double Reservoir I; Commissioner of Public Works submits map of ..... 249
Public hearing to be given on above September 8, 1886 ..... 250
Public hearing on above and same closed ..... 255
Committee on Real Estate report on taking the fee in lieu of an easement of parcels in Westchester County, 24th Ward, and on Manhattan Island Section ..... 286
Nos. 71, 72 and 73, President and Secretary to execute agreement with Joseph Disbrow for use of ..... 409

PEDDIE, ANDREW—
Assigned as Chainman to Fourth Division ..... 224

PERMITS—
Chief Engineer and Secretary authorized to obtain from Departments of City; for doing work on new Aqueduct in City limits ..... 61
President, Chairman of Committee on Construction and Chief Engineer authorized to issue; to inspect the Aqueduct ..... 346

PERRY, CHARLES N.—
Resignation as Chainman accepted ..... 175

PETERS, COLLINS Y.—
Appointed Inspector of Masonry ..... 339

PETERSON, CHARLES—
Agreement to be made with; for constructing a crib-dock on westerly side of Harlem River near Shaft 25; President authorized to execute same ..... 174
Work and materials furnished by; under agreement for constructing crib-dock on westerly side of Harlem River near Shaft 25, accepted and voucher for final payment authorized ..... 299
Final sub estimate (Voucher 2058) for above, approved ..... 325
Matter of settlement of claim of; for $701.03 for expense of removing solid rock under Harlem River, etc., referred to Committee on Construction ..... 326

PIPE LINES—
Commissioner of Public Works requested to report plans for conduit or pipe lines between 135th Street Gate House and Central Park Reservoir ..... 43, 104, 155
Commissioner of Public Works submits above plans; same referred to Chief Engineer for examination and report ..... 168
Report of Commissioner of Public Works upon necessity of constructing certain sewers simultaneously with the laying of the pipe lines from 135th Street Gate House to Central Park Reservoir, referred to Chief Engineers Church and Birdsall and Engineer Loomis for consideration and report ..... 385

PLANS—(See also "Maps")— PAGE
Aqueduct Commissioners have power to change or modify..... 3
Commissioner of Public Works requested to furnish additional plans and maps for construction of Sodom Dams and Reservoirs..... 16
Action deferred on adoption of said plans and maps..... 16
Commissioner of Public Works presents plans and specifications for construction of Sodom Dams and Reservoirs..... 26
Commissioner of Public Works requested to prepare and submit additional plans and maps for construction of Sodom Dams and Reservoirs, and six similar property maps..... 37
Commissioner of Public Works requested to prepare and submit plans, maps, etc., for Gate House at 135th Street and Convent Avenue; one at Central Park Reservoir, and for conduit between said Gate Houses.....43, 104
Oliver W. Barnes submits plans for curved dam at Quaker Bridge; referred to Chief Engineer for consideration and report..... 81
Plans and estimates of Commissioner of Public Works relative to new Gate House at 135th Street and Convent Avenue, referred to Chief Engineer for examination and report ..... 110
Chief Engineer directed to have surveys, maps and plans made showing modification in line of Aqueduct at Shaft Site No. 8..... 112
Further surveys, maps and plans directed to be made of proposed changes in work at Shafts 25 and 26..... 113
Commissioner of Public Works submits plans, modifying plans heretofore adopted, including additional lands at or near Shafts 25, 26 and 27..... 150
Secretary instructed to furnish lithographic copies of plans of the new Aqueduct to Comptroller..... 150
Commissioner of Public Works requested to report plans for Aqueduct from 135th Street to Central Park Reservoir, also for Gate House on north side of said reservoir..... 155
For Gate House at 135th Street and Convent Avenue, referred to Committee on Construction for examination and report..... 156
For iron-work of Saw Mill River Waste Weir Gate House, referred to Chief Engineer with power to advertise for bids for said work... 158
For Gate House at 135th Street and Convent Avenue, approved and adopted..... 167
For Gate House at Saw Mill River to include portion of the iron-work for Pocantico and Tibbitt's Brook Gate Houses..... 168
Maps, plans, estimates and specifications for conduit and pipe lines between 135th Street and Central Park Gate Houses, referred to Chief Engineer for examination and report..... 168
5A and 5B, for taking in fee simple additional lands at and near Shafts 25, 26 and 27, and upon the line of Convent Avenue, submitted by Commissioner of Public Works.....156, 181
Above plans approved and adopted..... 183
nmissioner of Public Works requested to submit plan of lands to be taken in fee between 145th Street and Convent Avenue, and 152d Street and 10th Avenue..... 268

PLANS—(Continued.) PAGE
Public hearing to be given on above, October 1, 1886..... 268
Of lands on line of Aqueduct between 145th and 152d Streets, submitted by Commissioner of Public Works, referred to Chief Engineer and Committee on Real Estate..... 296
Of lands required for construction of Shaft 15½, approved..... 315
Final Plan Sheet No. 5C, for lands between 145th Street and Convent Avenue, and 152d Street and 10th Avenue, approved and adopted. 316
Chief Engineer directed to send copies of; to Columbia College School of Mines ..... 330
Of Aqueduct through Gould's Swamp; Chief Engineer to prepare and submit estimates and details for change of..... 386
For Quaker Bridge Dam; Committee on Construction recommend appointment of Board of Experts to consider and report on..... 392

PLAYLE, E. F.—
Assigned as Rodman to Fourth Division..... 224
Certified to Civil Service for examination for promotion to Assistant Engineer ..... 406

POCANTICO CUT AND BLOW-OFF—
Making of agreement for $2,000 with Jeremiah Mahoney for lands at; Secretary directed to submit same to Board of Estimate and Apportionment for approval..... 44
President and Vice-President authorized to execute above agreement with Jeremiah Mahoney..... 52
Appropriation of $250 for Auxiliary Office at..... 123
Additional appropriation of $25 for above..... 158
Chief Engineer directed to examine highway at; and place same in proper condition..... 415

POCANTICO GATE HOUSE—
Plans for iron-work for Saw Mill River Gate House to include a portion of the iron-work for..... 168
Agreement to be made with Coldwell, Wilcox & Co. for iron-work required for the Blow-off and Waste Weir at..... 180
President authorized to execute above agreement..... 347
Report of Committee of Finance and Audit recommending 50 per cent. payment to Coldwell, Wilcox & Co. on their contract for iron-work for, adopted..... 370
Matter of acceptance of work, etc., furnished by Coldwell, Wilcox & Co. under their contract for iron-work for Blow-off and Waste Weir at; referred to Committee of Finance and Audit ..... 411
Above work accepted and final payment authorized..... 422

PORTER, A. H., JR.—
Assigned as Rodman to First Division..... 222

POTTER, ORLANDO B.—
Protests against construction of Quaker Bridge Dam; time for receiving communications extended to April 30, 1886..... 88

POWDER HOUSE— PAGE
Mrs. Mary Walker protests against proposed building of Powder House near Shaft 23 ..... 113

POWERS, C. V. V.—
Promoted from Chainman to Rodman and assigned to Fifth Division.. 225

PRESIDENT (OF AQUEDUCT COMMISSIONERS)—
Authorized to execute agreement with O'Brien & Clark for constructing culvert on dumping grounds of Shaft 19; also with Heman Clark for constructing culvert on dumping grounds of Shaft 20... 12
William R. Grace elected as ..... 28
Authorized to execute agreement with Jeremiah Mahoney for lands at Pocantico River Blow-off ..... 52
Authorized to execute lease with David W. Bishop for first flat, 269 West 125th Street, for two years, from May 1, 1886, at $420 per annum ..... 80
Commissioner Spencer elected as ..... 120
Requested to report to Aqueduct Commissioners a review of the work of the Commission to January 1, 1886 ..... 126
Authorized to execute leases authorized by the Aqueduct Commission for buildings rented for use of Engineers ..... 151
Directed to submit question of delay in payment of monthly estimates and correspondence in relation thereto, to Counsel to the Corporation for his opinion ..... 159
Submits communication in relation to compensation of Secretary ..... 172
Authorized to execute agreement with Charles Peterson for constructing a crib-dock on the westerly side of Harlem River near Shaft 25 ..... 174
Appointed on Committee to take into consideration the question of lands to be taken in fee on line of Aqueduct ..... 174
Provided for in By-laws ..... 191
Duties of ..... 194
Directed to request H. S. Craven, late Construction Engineer, to return all property belonging to Aqueduct Commissioners ..... 229
Appointed on Committee to confer with Civil Service Commission.... 253
Requested to submit copies of correspondence between himself and H. S. Craven in relation to books, etc., in possession of said Craven. 307
To ask Civil Service Commission for sum of marks in experience and technical knowledge in addition to general standing of Inspectors of Masonry on list received from said Commission ..... 343
Authorized to issue permits to inspect the Aqueduct ..... 346
Authorized to execute agreement with Coldwell, Wilcox & Co. for furnishing iron-work, etc., for Blow-offs and Waste Weirs at Pocantico, Saw Mill River and Tibbitt's Brook ..... 347
And Chairman of Committee on Construction to confer with Civil Service Board with regard to rules and regulations to be established for examination of persons applying for positions under Aqueduct Commissioners ..... 348

PRESIDENT—(Continued.) PAGE

Directed to call special meeting if report is received from Civil Service Commission with eligible list of Inspectors of Masonry..... 387

And Chief Engineer to prepare and have published report giving a complete history of the character, progress and expense of the new Croton Aqueduct to January 1, 1887..... 402

And Secretary authorized to accept conveyance from Joseph P. Disbrow for use of his lands in 24th Ward, and to execute agreement of submission on behalf of Commissioners..... 409

PRINCIPAL ASSISTANT ENGINEERS—

Provided for in By-laws ..... 192

Duties and powers of..... 198

J. Imbrie Miller and Charles Pugsley appointed..... 201

Salaries fixed at $400 per month..... 202

Assignment of; to their respective divisions of the Aqueduct..... 215

Provided for in amended By-laws..... 270

Chief Engineer to transmit to Committee on Construction copies of all weekly or other reports made by ..... 380

Request of Chief Engineer that two Assistant Engineers and two Rodmen be assigned to; referred to Committee on Construction.. 401

PRINTING—

Secretary to have 1,000 copies of views and reasons of Chief and Consulting Engineers of Department of Public Works why the Quaker Bridge Dam should be constructed printed..... 50

Secretary directed to have 2,500 copies of Report of Examining Engineers in relation to charges preferred by Mr. Craven against Chief Engineer Church printed..... 218

PROCTOR, W. W. (PURVEYOR)—

Compensation as Purveyor and Property Clerk fixed at $2,000 per annum ..... 82

PROMOTIONS—

Of Beverly R. Value to Transitman.. ..... 6

Of Arthur B. Satterlee..... } To Levelers ..... 6
Of Charles P. Bonnett.....
Of Louis P. De Luze.....

Of R. C. Rathborne..... } To Rodmen..... 6
Of Richard Baldwin, Jr....
Of Robert A. McKim .....
Of Lincoln Frank .....
Of George C. Marrin.....
Of Charles E. Richards....
Of Roland G. Rood.....
Of Fred. W. Carpenter.....

Of James McCarty ..... } To Chainmen ..... 6
Of James Walstead.....

Of Robert Ridgway ..... } To Assistant Engineers. ..... 222
Of H. R. Wheeler.....

PROMOTIONS—(Continued.) PAGE

Of Langdon C. Easton to Rodman ..... 222

Of J. A. Lockwood..... } To Assistant Engineers ..... 222
Of B. R. Value..... }

Of J. M. Stewart..... } To Assistant Engineers..... 223
Of George R. Olney. ..... }

Of Duncan McRae Livingston to Chainman..... 223

Of W. T. Ross to Rodman ..... 224

Of A. C. Chenoweth..... } To Assistant Engineers..... 224
Of C. G. Douw..... ..... }

Of C. V. V. Powers..... } To Rodmen ... ..... 225
Of G. E. Washburn..... }

PROPERTY MAPS—(See also "Maps")—

Of lands in 24th Ward, Parcels 74, 75 and 76, etc., adopted..... 17

Filing of Map No. 1 in office of Register of City and County of New York; Nos. 4, 5 and 6 delivered to Commissioners of Appraisal.. 54

Filing of Map No. 2 (Parcels 74 to 76½) in the office of the Register of Westchester County ... ..... ..... 59

Chief Engineer and Secretary directed to confer with Corporation Counsel in regard to seeming defect in property maps of Aqueduct through Convent Avenue, and amended maps (137th-145th Streets) and report..... 61

Of lands required for East Branch Reservoir (Exhibit FF) and 135th Street Gate House (Exhibit II), submitted by Commissioner of Public Works..... 96

Six property maps (Exhibit FF), lands for Double Reservoir I, adopted by Commissioners; to be transmitted to Counsel to the Corporation for filing; said Counsel requested to take proceedings for appointment of Commissioners of Appraisal..... ..... 10

Six property maps (Exhibit II), lands for 135th Street Gate House, adopted by Commissioners; to be transmitted to Corporation Counsel for filing; said Counsel requested to take proceedings for acquirement of land described on said map..... 102

Filing of Map No. 1 in office of Clerk of Putnam County, being land required for dams and reservoirs on East Branch of Croton River. 141

Filing of Map No. 1 (135th Street Gate House) in New York County and No. 2 in Westchester County..... 142

For additional lands at Shafts 25 to 27 and on line of Convent Avenue (Final Plan Sheets 5A and 5B), referred to Committee on Construction ..... ..... 156

For additional lands at and near Shafts 25, 26 and 27, submitted by Commissioner of Public Works..... ..... 181

Same approved and adopted ..... 184-5

Secretary directed to transmit same to Counsel to the Corporation for filing ..... ..... .... ..... 184-5

Of lands described by Final Plan Sheet No. 5C (between 145th Street and Convent Avenue and 152d Street and Tenth Avenue); Commissioner of Public Works requested to prepare and submit..... 317

PROPERTY MAPS—(Continued.) PAGE

Same submitted by Commissioner of Public Works; approved and adopted, and Secretary directed to transmit same to Counsel to the Corporation for filing.....327, 335

Of lands required at Shaft Site No. 8; Commissioner of Public Works requested to prepare and submit..... 360

Of lands required at Shaft Site No. 15½; Commissioner of Public Works requested to prepare and submit..... 361

Commissioner of Public Works submits above property maps; same approved and adopted ..... 365–6

PROPOSALS—

Chief Engineer directed to advertise for; for necessary apparatus for electric lights and ventilation where needed in the Aqueduct tunnels..... 262

Form of; inviting bids for constructing Section 15 (135th Street Gate House), approved..... 398

Action of Secretary in advertising for; for construction of Section 15, approved ..... 420

Secretary directed to publish abbreviated advertisement for; for construction of Section 15, in *Sanitary Engineer* and *Engineering News and Contract Journal*..... 420

PROTESTS—

Of William H. Webb and R. L. Darragh against closing of public hearings on Quaker Bridge Dam..... 36

Of O. B. Potter and others against construction of Quaker Bridge Dam..... 88

Of Mrs. Mary Walker against proposed building of Powder House near Shaft 23..... 113

Of Rev. John C. Bliss against Sunday work on the Aqueduct, referred to Chief Engineer..... 336

PUBLIC HEARING—

On Quaker Bridge, Muscoot and Sodom Dams continued..... 10, 13, 25, 33

Letter of James Wood in relation to water of Croton Lake read at.... 11

Resolutions fixing January 27th as date of final hearing on Quaker Bridge and Muscoot Dams and Reservoirs; action deferred ..... 15

To be resumed January 20th..... 16

To be finally closed on January 27th..... 28

Communication from Salem H. Wales, placed on file..... 35

Wm. H. Webb and R. L. Darragh protest against closing of public hearings..... 36

Finally closed..... 37

For taking Parcels 6, 71, 72 and 73; also two strips of land near Shafts 26 and 27; also fee in all lands on line of Convent Avenue, between 135th and 145th Streets ..... 133

Counsel for Wm. H. De Forest heard in relation to taking of lands of his clients..... 135

PUBLIC HEARING—(Continued.) PAGE
On Quaker Bridge and Muscoot Dams to be resumed on June 23, 1886 ..... 140
For taking Parcels 6, 71, 72 and 73, etc., resumed and closed ..... 141
On Parcels 71, 72 and 73, and in relation to Mr Disbrow's claim for compensation, reopened ..... 146
To be given on July 1, 1886, for the acquirement of the fee simple in nearly all the lands between Croton River and the 135th Street Gate House on the line of the Aqueduct ..... 149
On above ..... 162, 165
On above continued and closed ..... 171
To be given on September 8, 1886, on proposed change in location of highways bordering on Double Reservoir I; the change in location of the New York and New England Railroad, and for taking the fee in two additional parcels of land, marked Parcels 80 and 81 ..... 250
On above, and same closed ..... 255
To be given on October 1, 1886, on lands to be taken in fee between 145th Street and Convent Avenue and 152d Street and Tenth Avenue ..... 268
On above, and same closed ..... 309
To be given on November 10, 1886, on lands to be taken for Shaft Sites Nos. 8 and 15½ ..... 346
On lands to be taken for Shaft Site No. 8; adjourned to November 12, 1886 ..... 352–4
On lands to be taken for Shaft Site 15½, and same closed ..... 352-4
On lands to be taken for Shaft Site No. 8, continued and closed ..... 357–9

PUGSLEY, CHARLES (Principal Assistant Engineer)—
Appointed Principal Assistant Engineer ..... 201
Salary fixed at $400 per month ..... 202
Placed in charge of work from Shaft 15 to Central Park ..... 215
Chief Engineer and; to act as members of the Special Examining Board for examination of applicants for appointment by the Aqueduct Commissioners ..... 413

PURCHASING AGENT—(See "Purveyor and Property Clerk.")

PURVEYOR AND PROPERTY CLERK—
Compensation fixed at $2,000 per annum ..... 82
Provided for in By-laws ..... 191
Directed to purchase coal for Engineers' offices ..... 334

(Q)

QUAKER BRIDGE DAM—
Public hearing on; continued ..... 10, 13, 25, 33
Communication from Medical Society of City and County of New York in relation to construction of ..... 15

QUAKER BRIDGE DAM—(Continued.) PAGE
Communication from Edward E. Glaskin in relation to..... 15
Engineers of Aqueduct Commissioners and of Department of Public Works requested to prepare statements of their views on ..... 15
Resolution fixing January 27th as date of final hearing on Quaker Bridge and Muscoot Dams and Reservoirs; action deferred ..... 15
Resumption of public hearing January 20th. ..... ..... 16
Public hearings respecting Quaker Bridge, Muscoot and Sodom Dams and Reservoirs to be finally closed January 27th..... 28
Public hearing closed ..... ..... 37
Time for receiving written statements fixed at March 1, 1886..... 38
Report of Special Committee of 21 members of Union League Club on ..... 49
Chief Engineer and Consulting Engineer of Department of Public Works present views and reasons in favor of construction ..... 49
Secretary directed to have 1,000 copies of same printed..... ..... 50
Time for receiving written arguments in opposition to construction of; extended to April 1, 1886..... ..... ..... 61
Communication from E. E. Glaskin reviewing report of Chief Engineer on ..... ..... 66
Oliver W. Barnes submits plans for curved dam at Quaker Bridge; referred to Chief Engineer for consideration and report..... . 81
Protest of Wm. H. Webb, O. B. Potter and others against construction of..... ..... 88
Time for receiving communications extended to April 30th..... 88
Chief Engineer requested to report upon surveys and soundings of; and whether Engineer Corps engaged thereon cannot be disbanded..... ..... 140
Public hearing on; to be resumed on June 23, 1886..... 140
Report of Chief Engineer in relation to the surveys, and the Engineer Corps upon; referred to the Committee on Construction..... 145
Consideration of construction of; deferred..... 152
Chief Engineer submits communication on construction of..... 245
Committee on Construction to report on or before December, 1, 1886, in regard to... ..... 348
Committee on Construction recommend appointment of Board of Experts to consider and report on necessity of constructing; and on plans for same..... ..... ..... 392
Commissioner Baldwin presents names of J. B. Francis, George S. Greene, R. K. Martin and J. J. R. Croes, from which to make selection of experts on..... ..... 403
Reconsideration of action taken with reference to employing Board of Experts on; laid over..... 416
Communication from Alexander Beckers on; referred to Committee on Construction..... ..... 429

QUINN, JAMES—
Appointed Inspector of Masonry..... 342

(R)

RATHBORNE, RICHARD C.— PAGE
Promoted from Chainman to Rodman..... 6
Chief Engineer reports his suspension from Jerome Park Reservoir Survey and assignment to duty elsewhere..... 151
Assigned to Third Division..... 223

RAYMOND, ROSSITER W.—
Appointed as one of the experts to examine light and ventilation of the Aqueduct ..... 397

REINISCH, RICHARD A.—
Appointed Chainman..... 382
Appointment as Chainman revoked ..... 405
Appointed Axeman..... 407

RENSHAW, ALFRED H.—
Honorably discharged as Transitman..... 233

REPAUNO CHEMICAL CO.—
File notices of liens against Heman Clark and O'Brien & Clark for materials furnished for Sections A, B, and G amounting to $6,756.28..... 330

REPORT—
Of Committee on Construction in relation to acquiring fee in lieu of an easement upon Parcels 74, 75 and 76..... 2
Of Committee on Construction on construction of Sodom Dam and Reservoirs H and I..... 5
Of Chief Engineer upon matter of allowance for timber sections in Aqueduct tunnels, laid over..... 5
Of Chief Engineer on cost per mile of lining sides and roof of Aqueduct; laid over..... 7
Of Committee on Construction in relation to lining tunnel; action deferred..... 17
Of Committee of Finance and Audit on examination of bids received for constructing Sections 12, 13 and 14..... 31
Of Special Committee of twenty-one members of the Union League Club on Quaker Bridge Dam. ..... 49
Of Chief Engineer on condition of shafts and appliances used for safe performance of work, and his orders to improve same..... 57
Of Committee of Finance and Audit adverse to assignment of Special Assistant Engineer to assist counsel representing City before Commissioners of Appraisal..... 64
Of Committee of Finance and Audit in relation to monthly estimates; laid over..... 64
Of Committee of Finance and Audit on claim of Joseph P. Disbrow; action deferred..... 91
Of Committee of Finance and Audit in relation to lands of New York Life Insurance Company at Ardsley..... 99

REPORT—(Continued.) PAGE

Of Committee on Construction in relation to work on Section 12, and proposed changes in mode of connecting new and old systems of water supply ..... 100
Of Chief Engineer in relation to parcel of land belonging to Mrs. Janet Sandford at Shaft 19 ..... 106
Of Committee on Construction adverse to change of line of Aqueduct at Shaft Site No. 8 ..... 137
Of Chief Engineer on cements used on New Aqueduct ..... 144
Of Chief Engineer on bricks used on Sections 4 and 5 ..... 145
Of Chief Engineer on fee and easement in lands upon line of new Aqueduct; referred to Committee on Construction ..... 145
Of Chief Engineer on surveys and Engineer Corps upon Jerome Park Reservoir ..... 145
Of Committee of Finance and Audit in relation to employees in office of Secretary; laid over ..... 148
Commissioner Ridgway presents minority report in relation to employees in office of Secretary; adopted ..... 169
Of Examining Engineers on charges made against efficiency of Chief Engineer and imperfect work on the new Aqueduct; received and filed ..... 177
Of Special Committee on By-laws ..... 180
Of Special Committee on resolutions on death of Hubert O. Thompson. 207
Of Committee on Construction dividing line of Aqueduct from Croton Lake to Central Park into five divisions ..... 214
Of Examining Engineers in relation to charges preferred by Mr. Craven against Chief Engineer Church; Secretary directed to have 2,500 copies printed ..... 218
Of Committee on Construction on assignment of Division Engineers and balance of Engineer Corps ..... 221
Of Secretary on lands purchased by private negotiations for Aqueduct purposes ..... 234
Of Secretary on contracts made and executed prior to appointment of Aqueduct Commissioners as provided by Chapter 337, Laws of 1886 ..... 237
Of Committee of Finance and Audit on Estimate No. 19, Section B ... 248
Of Secretary showing amount paid to Commissioners of Appraisal out of Additional Water Fund ..... 251
Of Chief Engineer on progress made in lighting and ventilation of Aqueduct tunnels ..... 261
Of Chief Engineer on light and ventilation, approved ..... 268
Of Committee on By-laws on Rules of Order; referred back to same .. 285
Of Committee on Real Estate on the taking the fee in lieu of an easement of lands on the line of the Aqueduct in Westchester County, 24th Ward and on Manhattan Island Section ..... 286
Of Committee on Real Estate on work yet to be done in the acquirement of lands, etc., and recommending that the term of service of James W. McCulloh be extended to January 1, 1887; action deferred ..... 295

REPORT—(Continued.) PAGE

Of Secretary that no members of the clerical force have been or are now performing private services for any Commissioner..... 298

Of Committee of Finance and Audit on occupancy of Tarrytown Headquarters by any member of the Commission..... 301

Of Committee on Real Estate in relation to service of James W. McCulloh taken up and laid over for two weeks..... 304

Of Committee on By-laws on Rules of Order..... 319

Of Committee on Real Estate upon negotiations which are being made for purchasing lands for Aqueduct purposes..... 334

Of Committee on Construction in reference to immediate construction of the Muscoot Dam and Reservoir; referred back to said Committee..... 340

Of Committee on Real Estate in relation to taking lands for Shaft Sites Nos. 8 and 15½..... 346

Of Committee of Finance and Audit in regard to the first charge against Chief Engineer Church by Mr. Craven, exonerating him from all blame..... 350

Of Chief Engineer in regard to accidents and their cause at Shafts 16 and 17..... 365

Of Committee of Finance and Audit recommending that Coldwell, Wilcox & Co. be allowed 50 per cent. payment on their contract for iron-work for waste weirs at Pocantico, Saw Mill River and Tibbitt's Brook, adopted..... 370

Of Committee of Finance and Audit against part payment to Smith & Brown for stone delivered for Gate House on Section 1, adopted. 371

Of Committee on Construction in regard to delay of work on Section 13..... 375

Of Committee on Real Estate on result of negotiations for lands required for Shaft Site 15½..... 392

Of Special Committee appointed to examine into character and value of services of James W. McCulloh..... 393

Giving character, progress and expense of the new Croton Aqueduct to January 1, 1887; President and Chief Engineer to prepare and publish..... 402

Of Committee appointed to confer with Civil Service Commission .... 404

Of Committee on Real Estate upon matters connected with double reservoirs at Sodom and the relocation of the N. Y. & N. E. R. R.; referred to Special Committee..... 407

Of Committee on Real Estate in relation to agreement of submission on behalf of Commissioners of claims of Joseph P. Disbrow for use of his lands in 24th Ward of City of New York..... 409

Of Chief Engineer and Experts on light and ventilation of the Aqueduct tunnels, referred to Committee on Construction..... 428

REQUISITIONS—

Resolution requiring all requisitions to be approved by Chairman of Committee of Finance and Audit; lost..... 214

RESERVOIR I—(See "Sodom Dam and Reservoir.") PAGE

RESERVOIRS—(See also "Jerome Park, Quaker Bridge and Sodom Reservoirs")—

Secretary directed to confer with Corporation Counsel upon questions relating to increased area of..... 17

August Belmont, President American Jockey Club, remonstrates against taking of land in Jerome Park for..... 88

Chief Engineer requested to report upon surveys and soundings of proposed Jerome Park and Quaker Bridge Reservoirs, and whether Engineer Corps engaged thereon cannot be disbanded... 140

Report of Chief Engineer on above..... 145

RESIGNATION—

Of Solomon Davis, Transitman, accepted..... 42

Of John H. Timmerman, Auditor, accepted..... 82

Of E. B. Buckley, Clerk, accepted..... 131

Of David B. Lewis, Transitman, accepted..... 175

Of Charles N. Perry, Chainman, accepted..... 175

Of Joseph P. Davis, Consulting Engineer, accepted..... 188

Of Alphonse Fteley, Deputy Chief Engineer, accepted..... 189

Of Alfred A. Horne, Assistant Engineer, accepted..... 208

Of Robert H. Moore, Assistant Engineer, to take effect August 15, 1886, accepted..... 225

Of Robert H. Moore, Assistant Engineer, to take effect September 1, 1886, accepted..... 252

Of Roland G. Rood, Rodman, referred to Committee on Construction. 258

Of Roland G. Rood, Rodman, accepted..... 265

Of Robert Montgomery, Inspector of Masonry, accepted..... 355

Of Joseph T. Underhill.... }
Of Charles B. Nooney..... } Chainmen, accepted..... 389
Of Joseph C. Ryan..... }

Of William McCormick, Laborer, accepted..... 416

RESOLUTION—

Detailing Special Assistant Engineer to assist Corporation Counsel before Commissioners of Appraisal..... 58

Same reconsidered and referred to Committee of Finance and Audit.. 62

Reconsideration of resolution appointing Commission of Engineers to investigate charges made against Chief Engineer of Aqueduct Commissioners and amended resolution adopted..... 77

On death of Hubert O. Thompson, reported by Special Committee and adopted..... 207

Authorizing Purveyor to sell the pony in the Tarrytown stables, withdrawn..... 213

Requiring all requisitions to be approved by Chairman of Committee of Finance and Audit; lost..... 214

Requesting the Governor to investigate all expenditures of moneys paid out of "Additional Water Fund" for Aqueduct purposes; lost..... 278

That no position above Chainman will be filled without first having requested Chief Engineer to name suitable persons for same; lost. 307

RESOLUTIONS—(Continued.) PAGE
Repealing Section 4 of Article III. of By-laws, laid over..... 362
On death of Thomas Franklin, Assistant Engineer..... 368
Authorizing Chief Engineer to issue orders to Engineers and contractors to prohibit the use of gasoline on the work; lost..... 373
Requesting Counsel to Corporation to prepare bill for introduction into Legislature authorizing change of location of New York and New England Railroad near Sodom, laid over.....429-30

RICHARDS, CHARLES E.—
Promoted from Chainman to Rodman. ..... 6
Reduced to Chainman..... 224
Appointed Inspector of Masonry..... 388

RIDER & DOUGHERTY—
Bill of $185.25 for labor and cost of taking up and replacing concrete in experimental section near Yonkers Avenue, allowed..... 391

RIDGWAY, EDGAR L. (Commissioner)—
Takes office as Aqueduct Commissioner under Chapter 337, Laws of 1886..... 114
Elected member of Committee on Construction..... 120
Elected to fill vacancy in Committee of Finance and Audit..... 121
Presents minority report in relation to compensation of employees in Secretary's office..... 169
Elected member of Committee of Finance and Audit, and Committee on Construction..... 194

RIDGWAY, ROBERT—
Promoted from Transitman to Assistant Engineer and assigned to First Division ..... 222

ROBERTS, GRACIE S.—
Appointed Inspector of Masonry..... 342

RODMEN—
Richard C. Rathborne. ....
Richard Baldwin, Jr.....
Robert A. McKim .. .....
Lincoln Frank.....
George C. Marrin..... } Promoted to..... 6
Charles E. Richards.. .....
Rollin G. Rood.... .....
Fred. W. Carpenter.....
Martin Kennedy appointed..... 41
Langdon C. Easton promoted to..... 222
A. B. Satterlee.....
G. H. Cunningham.....
F. N. Speyer.. ..... } Reduced from Levelers to..... 223
C. P. Bonnett.....

RODMEN—(Continued.) PAGE
W. T. Ross..... } Promoted to.....224, 225
C. V. V. Powers..... .....
G. E. Washburn.....
C. F. Ferrer... ..... } Reduced from Levelers to.....224, 225
Ira A. Shaler..... }
Roland G. Rood, resignation referred to Committee on Construction. 258
Roland G. Rood, resignation accepted..... 265
Appointment of Committee to confer with Civil Service Commission on rules and regulations for appointment of..... 397
Report of above Committee..... 404

ROOD, ROLAND G.—
Promoted from Chainman to Rodman..... 6
Assigned to Third Division ..... 223
Resignation of; referred to Committee on Construction..... 258
Resignation accepted..... 265

ROSS, W. T.—
Promoted from Chainman to Rodman and assigned to Fourth Division. 224
Assigned to Second Division.... ..... 248

RULES AND REGULATIONS—
Committee appointed to confer with Civil Service Commission on; to be established for examination of persons for positions under Aqueduct Commissioners..... ..... 348
Committee consisting of Commissioners Newton, Baldwin and Fish appointed to confer with Civil Service Commission on; for appointment of Assistant Engineers, Rodmen and Chainmen..... 397
Report of above Committee ..... ..... 404

RULES OF ORDER—
Of Aqueduct Commissioners, adopted..... 190
Committee on By-laws present; referred back..... 285
Committee on By-laws present; adopted..... 319
When any Rule of Order may be repealed, amended or suspended.... 323

RUSSELL, WILLIAM—
Communication from; concerning bills, referred to Committee of Finance and Audit .... .. ..... ..... 125

RYAN, JAMES C.—
Appointed Inspector of Masonry..... .... ..... 155

RYAN, JOSEPH—
Appointed Chainman..... ..... ..... ..... 220
Assigned to Third Division..... 223
Committee of Finance and Audit report supplementary pay-roll of Engineer Corps containing name of. Matter of pay of; referred back to said Committee..... 355
Allowed half pay from August 22d to November 1, 1886..... 371
Resignation accepted ..... ... ..... 389

(S)

SALARIES— PAGE
Of W. W. Proctor, Purveyor, fixed at $2,000 per annum... ..... 82
Of Arthur B. Sinclair, as Office Boy, to be $5 per week..... 141
Of Inspectors of Masonry to be at the rate of $4 per day..... 160
Of Special or Tunnel Inspectors to be at the rate of $5 per day..... 160
Of Secretary reduced to $4,000 per annum..... 169
Of Secretary; motion to extend time when reduction of same shall take effect; lost..... 176
Of Division Engineers fixed at $250 per month..... 202
Of Principal Assistant Engineers fixed at $400 per month..... 202
Of James W. McCulloh as Special Assistant to the Chief Engineer fixed at $6,000 per annum..... 211
Of A. Fteley, Consulting Engineer, fixed at $5,000 per annum..... 265
Of Inspectors of Masonry, fixed at $120 per month..... 269
Of Special or Tunnel Inspectors, fixed at $150 per month..... 269
Of James W. McCulloh, as Special Assistant to the Chief Engineer, fixed at $5,000 per annum..... 393
Of E. L. Allen, Stenographer, increased to $1,250 per annum..... 423

SALE—
Of wood on line between Shafts 10 and 12A, to P. Dolan for $30..... 247

SAND—
Committee on Construction report that there has been no inferior sand used at Shaft 19½..... 356

SANFORD, MRS. JANET—
Request from counsel for; that a parcel of land belonging to her on dumping ground of Shaft 19 be taken by Commissioners; referred to Chief Engineer for investigation and report..... 94
Report of Chief Engineer on same; action deferred..... 106
Withdraws application for taking her lands adjoining Shaft Site 19 in City of Yonkers..... 118

SANITARY ENGINEER—
Secretary directed to publish abbreviated form of advertisement for proposals for construction of Section 15 in ..... 420

SATTERLEE, ARTHUR B.—
Promoted from Rodman to Leveler..... 6
Reduced from Leveler to Rodman and assigned to Second Division... 223

SATURDAY HALF-HOLIDAYS—
Secretary and Chief Engineer authorized to grant half-holidays on Saturdays in their respective departments ..... 152
Above action rescinded..... 348

SAW MILL RIVER WASTE WEIR GATE HOUSE— PAGE

Plans for iron-work of; referred to Chief Engineer with power to advertise for bids.... ... ..... 158

Plans for iron-work of; to include a small portion of the iron-work required for Pocantico and Tibbitt's Brook Gate Houses ..... 168

Agreement to be made with Coldwell, Wilcox & Co. for iron-work required for blow-off and waste weir at..... 180

President authorized to execute above agreement ..... 347

Report of Committee of Finance and Audit recommending 50 per cent. payment to Coldwell, Wilcox & Co. on their contract for iron-work for, adopted . . ..... ..... 370

SCHERMERHORN, JOHN P.—

Appointed Inspector of Masonry..... 388

SECRETARY—

Directed to have triplicate copies made of contract, etc., for Sections 12, 13 and 14, certified by Aqueduct Commissioners, and Counsel to the Corporation "as to form," and filed..... 2

Directed to transmit certified copy of "Final Plan Sheet 5¼" to Commissioner of Public Works and Counsel to the Corporation..... 5

Directed to prepare agreement and certificate for construction of culvert at Shaft 19 ..... .... 9

Directed to prepare agreement and certificate for construction of culvert at Shaft 20..... ..... 9

Directed to confer with Counsel to the Corporation upon questions relating to increased area of reservoirs..... 17

Directed to transmit Maps 1 and 2 to Counsel to the Corporation for filing in office of Register of Westchester and New York County; Maps 4, 5 and 6 to Commissioners of Appraisal and to file Map No. 3 (property maps of lands described on Final Plan Sheet 5¼). 18

Directed to prepare and submit to Committee of Finance and Audit, for transmission to Civil Service Board, list of names, residences, compensation and date of appointment of employees of Aqueduct Commissioners..... 19

Directed to return bond of W. S. Wilson, late Purveyor ..... 29

And Chief Engineer present tabulated statements of bids for Sections 12, 13 and 14..... ..... ..... ..... 32

Directed to obtain opinion of Counsel to the Corporation on interpretation of contract as to question of expense for removal of air-box used by contractor on Section 1 .... ..... 42

Directed to submit agreement with J. Mahoney for land at Pocantico Cut and Blow-off for $2,000 to Board of Estimate and Apportionment for approval..... 44

And Chief Engineer directed to prepare and submit to Counsel to Corporation for approval specification and agreement for sinking Shaft 19½ with Heman Clark..... ..... 46

Directed to obtain opinion of Counsel to Corporation in relation to jurisdiction of Commissioners of Accounts over reports of Engi-

SECRETARY—(Continued.) PAGE

neers of Aqueduct Commissioners and Contractors on new Aqueduct on accidents. ... 49

Directed to have printed 1,000 copies of views and reasons of Chief and Consulting Engineers of Department of Public Works in favor of construction of Quaker Bridge Dam... 50

Directed to have furnished daily papers for office... 50

Directed to transmit copy of opinion of Counsel to Corporation on jurisdiction claimed by Commissioners of Accounts in relation to accidents on work on new Aqueduct. ... 53

Directed to furnish Commissioners of Appraisal for Westchester County details of all agreements made by Aqueduct Commissioners with owners of lands on line of new Aqueduct, and nature of right acquired under same... 61

And Chief Engineer to confer with Counsel to Corporation in regard to seeming defect in property maps of Aqueduct through Convent Avenue, and amended maps (137th to 145th Streets), and report. 61

And Chief Engineer authorized to obtain from departments of City permits for doing work on new Aqueduct in City limits... 62

Directed to request of Wm. H. De Forest his confirmation of the arrangement with him for use of his land on Convent Avenue between 140th and 141st Streets... 65

Directed to prepare and present to Commission of Engineers detailed specifications of charges to be investigated, with list of witnesses and all records relating to same... 76

Authorized to employ a Stenographer to take testimony before Commission of Engineers... 78

Directed to have agreement with Cyrus W. Field for use of his land south of Shaft 13 for repairing a cave-in approved "as to form" by Counsel to Corporation and executed by O'Brien & Clark and the Aqueduct Commissioners... 80

Directed to confer with Counsel to the Corporation in relation to evidence to be given in cases pending before Commissioners of Appraisal for Westchester County, and report... 88

And Chief Engineer directed to submit form of agreement and specifications for "Shaft 21½" on Section A... 91

Reports conference with Counsel to the Corporation in relation to furnishing witnesses before Commissioners of Appraisal for Westchester County... 92

Directed to transmit to each contractor copy of letter of Secretary of State Board of Health in relation to contagious diseases... 93

Directed to notify Examining Engineers that counsel would be furnished them whenever requested... 96

Reports in relation to lands on Convent Avenue between 137th and 145th Streets; matter referred to Committee on Construction... 97

Directed to transmit to Board of Estimate and Apportionment copy of report in relation to lands of New York Life Insurance Company at Ardsley... 100

SECRETARY—(Continued.) PAGE

Directed to transmit copy of report of Division Engineer in charge of work at Shaft 32 to counsel of Academy of the Sacred Heart..... 107

Directed to confer with Counsel to the Corporation in regard to claim of Joseph P. Disbrow, and report ..... 107

Reports conference with Counsel to Corporation in relation to above.. 111

Directed to obtain original reports of Division and Assistant Engineers to Engineer of Construction, and submit same to Board of Examining Engineers..... ..... 111

Directed to submit to Counsel to Corporation communication from counsel for Joseph P. Disbrow in relation to his claim, and report what action said Counsel advised to be taken..... 118

Authorized to make application to Commissioner of Public Works for permission to string telephone wire on poles of old Aqueduct, from High Bridge to South Yonkers..... 118

Instructed to furnish each of the Commissioners with an abstract of the cost and amount of work done from its beginning to date; also number, capacity and salaries of employees..... .... 126

Instructed to report within ten days names of employees who have drawn salaries while absent from duty; time and amount of salary paid.... ..... 126

Chief Engineer and Secretary directed to furnish Counsel to Corporation maps and information required for amending proceedings in relation to lands of Joseph P. Disbrow (Parcel 74). ..... ..... 129

Directed to furnish set of drawings, plans, contracts, forms, etc., to Walter Wood, University of City of New York, and to complete set of Engineers of the Washington Aqueduct..... 136

Communication of Commissioner of Public Works in relation to reduction of force in office of; and saving of expense in that department, referred to Committee of Finance and Audit..... 139

Submits application of Arthur B. Sinclair for position of Office Boy... 141

Report of Committee of Finance and Audit relative to employees in office of..... ..... 148

Instructed to furnish lithographic copies of plans of new Aqueduct to Comptroller ..... ..... ..... 150

Directed to transmit to Comptroller notice from O'Brien & Clark and Heman Clark that they will hold the City liable for damages arising from delay in payment of monthly estimates..... 152

Authorized to grant half-holidays on Saturdays to employees in his office..... ..... 152

Report of Committee of Finance and Audit relating to employees in office of; called up, and laid on the table.. .. ..... 160

To confer with Board of Street Openings with regard to opening Convent Avenue from 137th to 145th Streets. ..... 164

Presents detailed abstract of total expenditures of Commission to June 30, 1886, referred to Committee of Finance and Audit..... 169

Commissioner Ridgway presents minority report in relation to compensation of employees in office of..... 169

SECRETARY—(Continued.) PAGE
Salary of; reduced to $4,000 per annum..... 170
President Spencer submits communication relative to compensation of. 172
Directed to ascertain whether the Counsel to the Corporation requires further instructions before carrying decision of Judge Lawrence in relation to Civil Service examination of appointees of Aqueduct Commissioners to Court of Appeals..... 176
Motion to extend time when reduction of salary of; shall take place; lost ..... 176
Directed to transmit property maps of additional lands at or near Shafts 25, 26 and 27, and upon line of Convent Avenue, to Counsel to the Corporation for filing..... 185
Provided for in By-laws..... 191
Duties of..... 195
James W. McCulloh, removed ..... 209
John C. Sheehan, appointed..... 209
Directed to have 2,500 copies of the report of Examining Engineers in relation to charges made by Mr. Craven against Chief Engineer Church printed..... 218
Directed to furnish list of all contracts made prior to appointment of Commissioners as provided by Chapter 337, Laws of 1886..... 226
Directed to furnish list of parties from whom lands have been purchased by private negotiations..... 227
Reports on above..... 234
Reports on contracts made and executed by; prior to appointment of Aqueduct Commissioners as provided by Chapter 337, Laws of 1886..... 237
Directed to furnish statement showing amount paid out of Additional Water Fund for expenses of Commissioners of Appraisal..... 245
Directed to furnish list showing names of all persons with whom negotiations are being had for the purpose of purchasing lands for Aqueduct purposes..... 246
Submits statement showing amount paid to Commissioners of Appraisal out of Additional Water Fund..... 251
Directed to record By-laws as amended..... 273
To suppress all letter-heads that are incorrect and have new ones printed ..... 282
Directed to report whether any members of the clerical force are performing private services for any Commissioner..... 292
Reports that no members of the clerical force have been or are now performing private services for any Commissioner..... 298
Directed to transmit to Comptroller estimate of Committee of Finance and Audit of expenses of Commissioners for 1887..... 312
Directed to transmit to the Counsel to the Corporation for filing property maps of additional lands to be taken in fee in the 12th Ward of City of New York ..... 329
Directed to transmit to Comptroller corrected estimate of amount required for expenses of Commissioners for 1887..... 333

SECRETARY—(Continued.) PAGE

Directed to furnish Commissioners of Appraisal for New York County section with atlas map of 24th Ward..... 335

To arrange with James H. Caulfield for furnishing legislative bills, Session 1886–1887, for $50..... 378

To furnish to each member of Commission copy of testimony taken before Special Committee appointed to inquire into character of services, etc., performed by James W. McCulloh..... 379

And President authorized to accept conveyance from Joseph P. Disbrow for use of his lands in 24th Ward and to execute agreement of submission on behalf of Commissioners..... 409

Directed to report number of expert commissions appointed by Aqueduct Commissioners since formation of Commission..... 415

Action in advertising for proposals for construction of Section 15, approved..... 420

Directed to publish abbreviated notice in *Sanitary Engineer* and *Engineering News and Contract Journal* for proposals for construction of Section 15..... 420

Directed to furnish each Commissioner with a copy of all proposed amendments to By-laws..... 427

Presents report showing number of expert commissions appointed by Aqueduct Commissioners..... 429

SECTION—

12, 13 and 14; Commissioner of Public Works submits forms of contracts, specifications and bonds for the construction of..... 1

Same approved and adopted..... 2

12, 13 and 14; bids received for constructing..... 24

Referred to Committee of Finance and Audit..... 25

Chief Engineer and Secretary to tabulate..... 25

Appropriation of $112 for contract drawings for same..... 29

Committee of Finance and Audit report on formality, etc., of bids received for same..... 31

Chief Engineer and Secretary present tabulated statements of bids received for same..... 32

Award of contracts for same deferred..... 32

12; contract for construction of; awarded to O'Brien & Clark..... 40

13 and 14; contract for construction of; awarded to John Brunton & Co..... 41

13 and 14; contract for construction of; ordered to be executed with John Brunton & Co..... 46

12; contract for construction of; ordered to be executed with O'Brien & Clark..... 46

12, 13 and 14; Chief Engineer directed to place Edward Wegmann, Jr., Division Engineer, in charge of work upon (Engineering Division No. 7)..... 56

2; opinion of Counsel to Corporation in relation to removal of air-box on..... 76

SECTION—(Continued.) PAGE

12; report in relation to work on (Harlem River crossing), and proposed changes in connecting old and new systems of water supply at that place... ..... ..... 100

12 and 14; Counsel to Corporation directed to take proceedings to acquire additional lands on... .....115, 116

4 and 5; Chief Engineer directed to examine bricks delivered on; for arch of tunnel, and report if they are unsatisfactory; if so, to require contractors to remove same and furnish bricks strictly conforming to contract..... 138

Chief Engineer requested to report what is necessary to be done to correct defects in brickwork in tunnel north and south of open cut on Section 4..... ..... 138

4 and 5; Chief Engineer reports in relation to bricks used on ..... 145

B; report of Committee of Finance and Audit on Estimate No. 19 of.. 248

13 and 14; notices of lien filed by P. Flanagan and P. J. Fleming against, referred to Committee of Finance and Audit..... .. 267

8; notice of lien filed by the Burleigh Rock Drill Company for $1,130 against..... . ..... ..... 290

1 and 15; Gate Houses on; also 12, 13 and 14; appropriation of $400 for mounting and binding contract drawings of..... ... 314

A, B and 9; notices of lien filed by the Repauno Chemical Company against..... 330

7; notice of lien filed by the Newark Lime and Cement Company for $300 against ..... 336

1; Committee of Finance and Audit report progress on matter of part payment to Smith & Brown for stone delivered for Gate House on. 364

9; Notice of lien filed by John Kelly for $1,020 against O'Brien & Clark..... ..... 366

13; Committee on Construction to report cause of delay of work on.. 368

1; Committee of Finance and Audit report against part payment to Smith & Brown for stone delivered for Gate House on..... 371

13; Report of Committe on Construction in relation to delay of work on ..... ..... . ..... 375

15 (135th Street Gate House); form of proposals inviting bids for construction of, approved..... .. ..... ..... 398

Action of Secretary in advertising for proposals for construction of same, approved..... .... ..... 420

Secretary directed to publish abbreviated form of advertisement for proposals for construction of same in *Sanitary Engineer* and *Engineering News and Contract Journal*..... 420

SEDGWICK AVENUE—

Communication of O'Brien & Clark in relation to closing up; referred to Committee on Construction..... ..... ... 187

SEWERS—

John Brunton & Co. authorized to construct a temporary sewer around Shaft 29; cost not to exceed $600..... ..... 84

SEWERS—(Continued.) PAGE

Commissioner of Public Works reports upon necessity of constructing sewers simultaneously with the laying of eight lines of four foot pipes for Gate House at 135th Street, and to Central Park Reservoir; referred to Chief Engineers Church and Birdsall and Engineer Loomis for consideration and report..... 385

SHAFTS—

19; Secretary directed to prepare agreement and certificate for construction of culvert by O'Brien & Clark at..... 9

20; Secretary directed to prepare agreement and certificate for construction of culvert by Heman Clark at..... 9

5 and 9; Communication of Chief Engineer in relation to lining Aqueduct at, laid over..... 42

19½; Chief Engineer and Secretary directed to prepare and submit to Counsel to Corporation for approval, specifications and agreement with Heman Clark for sinking Shaft No. 19½..... 46

Report of Chief Engineer on condition of shafts and appliances used for safe performance of work and his orders to improve same.... 57

Agreement to be made with O'Brien & Clark for work at cave-in near Shaft 13 ..... 68

29; John Brunton & Co. authorized to construct temporary sewer around; cost not to exceed $600 ..... 84

21½; on Section A, authorized to be sunk; Secretary and Chief Engineer directed to submit form of agreement and specifications for same ..... 91

19; Mrs. Janet Sanford requests that Commissioners take parcel of land at..... 94

21½; Form of agreement for, adopted..... 97

Site 8; Chief Engineer directed to have surveys, maps and plans made showing modification to be made in the location of Aqueduct at..... 112

25 and 26; Commissioners direct further surveys, plans and maps to be made of proposed changes in work at..... 113

19; Mrs. Janet Sanford withdraws application for taking her land in City of Yonkers, adjoining..... 118

18; Request of O'Brien & Clark for permission to remove stone from; referred to Committee on Construction..... 119

17, 18 and 19; request of City of Yonkers for permission to remove stone from, referred to Committee on Construction..... 119

9 and 10; request of W. H. Warnock for permission to remove stone from, referred to Committee on Construction..... 119

Incline shaft at or near Station 1267 on Section B, authorized to be sunk..... 123

O'Brien & Clark ask for authority to sink additional shafts between 13 and 14 and 15 and 16, referred to Chief Engineer for investigation and report..... 131

Shaft Site No. 8; Committee on Construction report adversely to change of line of Aqueduct at..... 137

SHAFTS—(Continued.) PAGE

Additional shafts; Committee on Construction to consult Counsel to Corporation with regard to power of Commissioners to order contractors (except upon Sections A and B) to construct..... 137

Shaft Site No. 8; Commissioners decline to make changes in line of Aqueduct at..... 144

25, 26 and 27; Commissioner of Public Works submits plans modifying plans heretofore adopted, including additional lands at or near. 150

25 to 27; Final Plan Sheets 5A and 5B, and property maps for additional lands to be taken at; submitted by Commissioner of Public Works.....156, 181

Above final plan sheets and property maps approved and adopted.... 181

12C, located.. ..... 186

11C, authorized to be sunk..... 186

O'Brien & Clark notify Commissioners of purchase of land for shaft site between Shafts 16 and 17, referred to Committee on Construction..... ..... 257

Matter of construction of additional shaft between Shafts 16 and 17, referred to Committee on Construction..... 258

20; work done by Heman Clark on culvert across dumping grounds of; accepted and final payment authorized..... 266

19; notice of lien filed by John Kelly against; referred to Committee of Finance and Audit..... ..... 267

13; Chief Engineer to complete borings near..... 281

Additional shafts required between Shafts 13 and 14, 15 and 16 and 16 17, to be known as Nos. 13½, 15½ and 16½..... 282

15½ authorized to be sunk; Chief Engineer to have lands and dumping grounds of; mapped ..... ..... 283

16½ authorized to be sunk; Committee on Construction to prepare forms of contract for same..... 284

19½; Voucher 2020, sub-estimate for work at; approved..... 294

20; Voucher 2021, final estimate for culvert at; approved..... ..... 294

23; work done by O'Brien & Clark on culvert across dumping grounds of; accepted, and voucher for final payment authorized.. 300

13½ authorized to be located and constructed; Committee on Construction directed to prepare contract for construction of same..... 313

15½; plan of lands required for construction of; approved. Committee on Real Estate to take necessary steps to acquire the fee in said lands..... 315

23; final sub-estimate of O'Brien & Clark (Voucher 2057) for culvert across dumping grounds of; approved..... 325

12C; execution of contract for; by sureties of O'Brien & Clark, waived..... ..... 327

Zero and 1; headings between; meet ..... 334

19; work done by O'Brien & Clark on culvert across dumping grounds of; accepted, and voucher for final payment authorized..... 335

18½; bill of John Townshend for $250 for professional services rendered in opening of; referred to Committee of Finance and Audit. 337

SHAFTS—(Continued.) PAGE
16 and 17; Chief Engineer directed to report cause of accidents at.... 337
19; final sub-estimate for culvert across dumping grounds, approved. 341
12C; final sub-estimate for, approved..... 341
8 and 15½; Committee on Real Estate report in relation to taking lands for..... 346
Public hearing to be given on above, on November 10, 1886..... 347
8; public hearing on lands for; adjourned to November 12, 1886.... 352–4
15½; public hearing on lands for; same closed... ..... 352–4
19½; Committee on Construction report that no inferior sand has been used at..... 356
8; public hearing on lands for; continued and closed..... 357–8
Final Plan Sheet 9A, lands required for same, approved and adopted. 359–60
Commissioner of Public Works requested to submit property maps of lands required for same..... 360
15½; Final Plan Sheet 3A, lands required at, approved and adopted.. 361
Commissioner of Public Works requested to submit property maps of lands required for same..... 361
16½; execution of contract for; by sureties of O'Brien & Clark, waived..... 362
16 and 17; Chief Engineer reports in regard to accidents and their cause at ..... 365
8 and 15½; Commissioner of Public Works submits property maps of lands required for; approved and adopted, and Counsel to the Corporation to take required proceedings to acquire said lands.. 365–6
13A; ordered to be constructed and land for same taken..... 376
13½; construction of, suspended ..... 377
18; communication of Chief Engineer with regard to cement used in foundation concrete in open cut at; referred to Committee of Finance and Audit..... 383
11C; execution of contract for; by sureties of Brown, Howard & Co., waived..... 384
15½ Committee on Real Estate report on result of negotiations for lands required for..... 392
8 and 15½; communication from Counsel to Corporation regarding proof of advertisement for, referred to Chief Engineer to report to Committee on Real Estate..... 401
21; Chief Engineer reports burning of hoist-house and compressor room at..... 414
16½; sub-estimate for, approved..... 421

SHALER, IRA A.—
Reduced from Leveler to Rodman and assigned to Fifth Division..... 225

SHANTIES—
To be built to allow Inspectors and members of Engineer Corps to change their clothes; cost not to exceed $70 each..... ..... 406

SHEEHAN, JOHN C.—
Appointed Secretary Aqueduct Commissioners..... 209

SHEPARD, WILLIAM A.— PAGE
Appointed Inspector of Masonry..... 231

SINCLAIR, ARTHUR B.—
Appointed Office Boy at $5 per week..... 141

SMALLPOX—
Contractors requested to take every possible precaution against introduction of men who have been exposed to contagious diseases, and to comply with suggestions of Boards of Health in relation thereto. 93

SMITH & BROWN (CONTRACTORS)—
Committee of Finance and Audit report progress on matter of part payment to; for stone delivered for Gate House on Section 1.... 364
Report of Committee of Finance and Audit against above part payment, adopted..... 371

SODOM DAMS AND RESERVOIRS—
Report and resolutions of Committee on Construction for constructing. 5
Views of Commissioner Spencer on construction of..... 9
Public hearings on; continued.....10, 13, 25, 33
Communication from Medical Society of City and County of New York in relation to construction of..... 15
Communication from Edward E. Glaskin in relation to construction of. 15
Commissioner of Public Works requested to furnished plans and maps for construction of..... 16
Adoption of same, deferred..... 16
Commissioner of Public Works presents plans and specifications for construction of..... 26
Public hearing on; to be finally closed January 27th..... 28
Aqueduct Commissioners direct construction of..... 36
Commissioner of Public Works requested to prepare and submit additional plans and maps for construction of; with six property maps..... 37
Public hearing finally closed..... 37
Commissioner of Public Works submits property maps of lands required for..... 96
Same approved and adopted..... 101
Walter McCulloh, Assistant Engineer, assigned to special duty in making soundings and examinations at..... 248
Commissioner of Public Works submits map (Exhibit FF) showing proposed changes in highways bordering on; also change in location of the New York and New England Railroad, and the taking in fee of Parcels 80 and 81..... 249
Public hearing to be given on above, September 8, 1886..... 250
Chief Engineer authorized to employ five or six laborers for making soundings and test pits at..... 253
Public hearing on proposed change in location of highways bordering on; also on change of location of the New York and New England Railroad; also on two additional parcels of land known as Parcels 80 and 81 (same closed)..... 255

SODOM DAMS AND RESERVOIRS—(Continued.) PAGE

Report of Committee on Real Estate upon matters connected with; and the relocation of the New York and New England Railroad, referred to Special Committee..... 407

Communication from Counsel to Corporation in relation to placing monuments on property required for, referred to Committee on Real Estate..... 411

Committee on Real Estate to complete details necessary for carrying out proposed settlement with the New York and New England Railroad Company in reference to change of location of their railroad at..... 418

Resolution requesting Counsel to Corporation to prepare bill for introduction in Legislature authorizing change of location of New York and New England Railroad at, laid over.....429-30

SOUNDINGS—

Chief Engineer requested to report upon surveys and soundings of proposed Jerome Park and Quaker Bridge Reservoirs..... 140

At Sodom Dam and Reservoir; Walter McCulloh, Assistant Engineer, assigned to special duty in making..... 248

Chief Engineer authorized to employ five or six Laborers on above... 253

SOUTHERN TERMINUS—

Southern terminus of Aqueduct fixed at the Central Park Reservoir...43, 104

SPECIAL ASSISTANT ENGINEER—

Committee on Construction authorized to detail from Engineer Corps an Engineer, to be known as; to aid Counsel to the Corporation before Commissioners of Appraisal in matter of adjustment of claims ..... 58

Above action reconsidered, and matter referred to Committee of Finance and Audit..... 62

Committee of Finance and Audit report adversely on above..... 64

SPECIAL ASSISTANT TO CHIEF ENGINEER—

James W. McCulloh appointed; at $6,000 per annum..... 211

Services of James W. McCulloh continued, at $5,000 per annum..... 393

SPECIAL COMMITTEE—

Commissioners Spencer, Fish, Barnes and Dowd appointed; to prepare amendments to By-laws..... 119

Revocation of action of Commissioners in relation to increase in number and appointment of members of Committee on Construction, referred to..... 132

President, Vice-President, Commissioner of Public Works and Commissioner Barnes appointed; to take into consideration question of lands to be taken in fee simple on the line of the Aqueduct ... 174

Report of; on By-laws..... 180

Commissioner Fish elected member of; to take into consideration question of lands to be taken in fee simple on line of Aqueduct... 186

SPECIAL COMMITTEE—(Continued.) PAGE

Consisting of Commissioners Squire, Dowd and Baldwin, appointed to draft resolutions on death of Hubert O. Thompson..... 203
Report resolutions on death of Hubert O. Thompson..... 207
Consisting of the President, Vice-President and Chief Engineer, to confer with Civil Service Commission..... 253
On By-laws report Rules of Order; referred back to same..... 285
Consisting of Commissioners Spencer, Newton and Barnes, appointed to examine character and value of services of James W. McCulloh. 306
On By-laws report Rules of Order; adopted ..... 319
Committee appointed to examine character and value of services of James W. McCulloh allowed two weeks' further time in which to report.....329, 334
Opinion to Counsel to the Corporation in relation to appointment, etc., of Secretary of Committee on Real Estate, referred to above Committee..... 343
Recommendation of Committee on Construction in favor of appointment of F. W. Frost as Assistant Engineer, referred to..... 350
Secretary directed to furnish each member of Commission copy of testimony taken before above Committee appointed to inquire into character of services, etc., performed by James W. McCulloh.... 379
Report of above Committee..... 393
Consisting of Commissioners Newton, Baldwin and Fish, appointed to confer with Civil Service Commission on rules and regulations for appointment of Assistant Engineers, Rodmen and Chainmen..... 397
Report of above Committee..... 404
Report of Committee on Real Estate upon matters connected with double reservoirs at Sodom, and the relocation of the New York and New England Railroad, referred to..... 407

SPECIAL EXAMINING BOARD—

Chief Engineer Church and Principal Assistant Engineer Pugsley to act as members of; for examination of applicants for appointment by the Aqueduct Commissioners..... 413

SPECIAL MEETINGS—

Provided for in By-laws and Rules of Order .....191, 321
President directed to call; if report is received from Civil Service Commission with eligible list of Inspectors of Masonry..... 387

SPECIFICATIONS—

Forms of contracts, specifications and bonds for construction of Sections 12, 13 and 14, submitted by Commissioner of Public Works. 1
Same approved and adopted ..... 2
Maps, plans, estimates and specifications for conduit or pipe lines between 135th Street and Central Park Gate Houses, referred to the Chief Engineer for examination and report..... 168

SPENCER, JAMES C. (COMMISSIONER)— PAGE
Views on construction of Sodom Dam and Reservoir..... 9
Appointed on Committee to prepare and present amendments to By-laws ..... 119
Elected member of Committee on Construction.....29, 120, 194
Elected President of Aqueduct Commissioners..... 120
Elected member of Committee on Construction ..... 277
Elected member of Committee on Real Estate ..... 277
Elected vice-Chairman of Committee on Construction..... 280
Appointed on Committee to examine character and value of services of James W. McCulloh..... 306
Elected Chairman of Committee on Real Estate..... 317

SPEYER, FRANK N.—
Reduced from Leveler to Rodman and assigned to Third Division... 223

SQUIRE, ROLLIN M. (COMMISSIONER OF PUBLIC WORKS)—
Appointed on committee to draft resolutions on death of Hubert O. Thompson..... 203

STATE BOARD OF HEALTH—
Contractors requested to take every possible precaution against introduction of men who have been exposed to contagious diseases; and to comply with suggestions of Boards of Health in relation thereto ..... 93
Secretary to transmit copy of letter received from; to Contractors... 93

STATED MEETINGS—
Of Aqueduct Commissioners to be held at 2 o'clock P. M..... 152
Provided for in By-laws and Rules of Order ..... 190

STATUE OF LIBERTY—
Chief Engineer to invite engineers, etc., from France to the unveiling of; to examine plans and work of new Aqueduct. ..... 242
Offices of Commissioners to be closed on October 28, 1886, in honor of the celebration of the unveiling of..... 344

STENOGRAPHER—
Secretary directed to employ Stenographer to take testimony before Commission of Engineers investigating charges made by H. S. Craven against Chief Engineer Church..... 78
Appropriation of $2,000 for payment of expenses of Board of Examining Engineers and Stenographer to report proceedings of said Board ..... 115
Edward L. Allen requests that his salary be increased to $1,500 per annum; referred to Committee of Finance and Audit ..... 413
Edward L. Allen's salary fixed at $1,250 per annum..... 423

STEWART, J. M.—
Promoted from Transitman to Assistant Engineer..... 223

STONE— PAGE

An Inspector to be sent to Maine to inspect stone for new Croton Gate House ..... 124

Chief Engineer authorized to detail Inspectors to inspect stone at quarries..... 188

Reports of Committee on Construction in regard to paying a portion of bills of Smith & Brown for cut stone delivered for new Croton Gate House, referred to Committee of Finance and Audit..... 350

Committee of Finance and Audit report progress on matter of part payment to Smith & Brown for stone delivered for Gate House on Section 1..... 364

Report of Committee of Finance and Audit against above part payment; adopted..... 371

SURETIES—

Information in relation to; on bids received for construction of Sections 12, 13 and 14 to be furnished by January 28, 1886..... 32

Execution of contract for Shaft 12C by; of O'Brien & Clark waived.. 327

Execution of contract for Shaft 16½ by; of O'Brien & Clark waived... 362

Execution of contract for Shaft 11C by; of Brown, Howard & Co. waived..... 384

SURRIGAN, JOHN—

Appointed Laborer on Sixth Division ..... 75

Assigned to Fifth Division..... 225

SURVEYS—

Communication of D. O. Bradley and others requesting Aqueduct Commissioners to cause surveys to be made in relation to supplying cities, etc., on route of old Aqueduct with water from same.. 48

Chief Engineer directed to have surveys, maps and plans made showing modification to be made in the location of Aqueduct at Shaft Site No. 8..... 112

Commissioners direct further surveys, maps and plans to be made of proposed changes in work at Shafts 25 and 26..... 113

Chief Engineer requested to report upon; of proposed Jerome Park and Quaker Bridge Reservoirs..... 140

Report of Chief Engineer on above..... 145

Suspension of Engineer Corps and Laborers engaged upon surveys of Jerome Park Reservoir..... 145

Chief Engineer reports suspension of Engineer Corps and Laborers engaged on Jerome Park Reservoir..... 151

SWAIN, JOSEPH R.—

Appointed Inspector of Masonry..... 388

SWAN, WILLIAM B.—

Chief Engineer reports his suspension on Jerome Park Reservoir Survey and assignment to duty elsewhere..... 151

Honorably discharged as Assistant Engineer..... 233

Reappointed Assistant Engineer..... 342

(T)

TAAFFE, JOHN P. R.— PAGE
Honorably discharged as Chainman..... 233
Appointed Axeman..... 407

TAFT, CHARLES E.—
Appointed Inspector of Masonry..... 155
Granted indefinite leave of absence, without pay..... 258

TARRYTOWN HEADQUARTERS—
Salary of James E. Taylor, Janitor of; increased to $100 per month.. 6
Matter of removal of books and papers by H. S. Craven from; referred to Commissioner Spencer for adjustment..... 81
Committee of Finance and Audit requested to inquire and report on occupancy of; by any Commissioner..... 292
Report of Committee of Finance and Audit on above..... 301

TAXPAYERS AND BUSINESS MEN'S ASSOCIATION—
Statement from; in relation to dams and reservoirs placed on file.. . 27

TAYLOR, JAMES E. (Janitor Tarrytown Headquarters)—
Increase of salary to $100 per month..... 6

TAYLOR, WILLIAM H.—
Placed in charge of the cement machine at Tarrytown..... 220

TELEPHONE—
Secretary authorized to make application to Commissioner of Public Works to string telephone wires on poles of old Croton Aqueduct from High Bridge to South Yonkers..... 118
Communication of Metropolitan Telephone and Telegraph Company making application for furnishing a telephone service on line of Aqueduct, referred to Committee on Construction..... 330

TEMPORARY OFFICE—
Chief Engineer authorized to have built; at 149th Street and Convent Avenue; cost not to exceed $250..... 110

TENTH AVENUE CABLE ROAD—
Chief Engineer authorized to contract with; for transportation of Seventh Division Engineer Corps..... 130

THOMAS, ISAAC—
Appointed Inspector of Masonry..... 155

THOMPSON, GAYLORD—
Appointed Inspector of Masonry..... 339

THOMPSON, HUBERT O. (Ex-Commissioner of Public Works)—
Special Committee appointed to draft resolutions on death of..... 203
Resolutions on death of..... 207

TIBBITT'S BROOK GATE HOUSE— PAGE
Plans for iron-work for Saw Mill River Gate House to include a portion of the iron-work for ..... 168
Agreement to be made with Coldwell, Wilcox & Co. for iron-work required for Blow-off and Waste Weir at ..... 180
President authorized to execute above agreement ..... 347
Report of Committee of Finance and Audit recommending 50 per cent. payment to Coldwell, Wilcox & Co. on their contract for iron-work for, adopted ..... 370
Matter of acceptance of work, etc., furnished by Coldwell, Wilcox & Co. under their contract for iron-work for Blow-offs and Waste Weirs at; referred to Committee of Finance and Audit ..... 411
Above work accepted and final payment authorized ..... 422

TIERNEY, JOHN F.—
Appointed Inspector of Masonry ..... 388

TILLOTSON, GEORGE L.—
Appointed Inspector of Masonry ..... 388

TIMMERMAN, JOHN H. (AUDITOR)—
Tenders resignation of position of Auditor ..... 73
Resignation accepted ..... 82

TOMPKINS, DAVID B.—
Matter of loss and damage to property of; at Shaft No. 1, referred to Commissioners of Appraisal ..... 252

TOOMEY, JOHN—
Appointed Inspector of Masonry ..... 388

TOWNSHEND, JOHN—
Bill for $250 for professional services rendered in opening Shaft 18½, referred to Committee of Finance and Audit ..... 337

TRACER—
Duncan McRae Livingston appointed ..... 30

TRANSIT—
Appropriation of $250 for ..... 266

TRANSITMAN—
Beverly R. Value promoted to ..... 6
Solomon Davis; resignation accepted ..... 42
David B. Lewis; resignation accepted ..... 175
Bowley, Henry H.; honorably discharged ..... 233

TUNNELS—
Report of Chief Engineer upon matter of allowances for timber sections in Aqueduct tunnels, laid over ..... 7
Chief Engineer directed to consult Counsel to the Corporation on legal questions involved in the method of timbering in the Aqueduct tunnels and certain allowances asked by Contractors ..... 17

TUNNELS—(Continued.) PAGE

Report of Committee on Construction in relation to lining; action deferred..... 17

Opinion of Counsel to the Corporation in relation to changes in method of timbering in Aqueduct tunnels; action deferred..... 53

Chief Engineer directed to order new Aqueduct tunnel lined throughout its entire length..... 57

Chief Engineer instructed to be governed by opinion of Counsel to the Corporation in relation to changes in method of timbering in Aqueduct tunnels and certain allowances asked by Contractors... 58

Chief Engineer directed to examine bricks delivered on Sections 4 and 5 for arch of; and report if they are satisfactory; if not, to require contractors to remove same and furnish bricks strictly conforming to contract..... 138

Chief Engineer requested to report what is necessary to be done to correct defects in brickwork of; north and south of open cut on Section 4 ..... 138

Chief Engineer reports concerning past observance of requirements of contracts by contractors in relation to light and ventilation in... 151

Brown, Howard & Co. granted an extension of 15 days for completing arrangements for light and ventilation in..... 176

Communication of Chief Engineer in relation to ventilating and lighting; referred to Counsel to the Corporation, and Chief Engineer authorized to take such action as he deems proper in the premises. 231

Report of Chief Engineer on progress made in lighting and ventilation of..... 261

Chief Engineer directed to advertise for proposals for necessary apparatus to provide electric lights and ventilation where required in 262

Chief Engineer reports on meeting of certain headings of..... 290

Report of Committee on Construction on light and ventilation of; discussed and laid on the table..... 351

Chief Engineer authorized to employ James T. Gardner and William McQuale to examine light and ventilation in..... 372

Chief Engineer to report as to the necessity of putting solid masonry over arch of..... 386

Communication of C. R. Cummings, of Brown, Howard & Co., requesting that solid masonry be put in over arch of; referred to Committee on Construction..... 387

Rossiter W. Raymond appointed as one of the experts to examine light and ventilation in..... 397

Report of Chief Engineer and Experts on light and ventilation in.... 428

TUNNEL INSPECTORS—

Charles T. Kalmbach..... } Appointed..... 6
William W. Wheeler..... }

Compensation to be at the rate of $5 per day..... 160

Compensation fixed at $150 per month ..... 269

Chief Engineer to report names of; who are now employed on work of contractors in whose employ they formerly were ..... 386

WARRANTS—(Continued.) PAGE
$5,215.52, New York County ..... 330
$1,087.47, Westchester County ..... 335
$200, New York County ..... 335
$500, Putnam County ..... 343
$811.70, Westchester County ..... 355
$251.68, Westchester County ..... 366
$250, New York County ..... 366
$201.12, Westchester County ..... 378
$200, New York County ..... 378
$1,000, Manhattan Island Section ..... 385
$300, Westchester County ..... 395
$4,856.83, Westchester County ..... 413
$3,950, New York County ..... 413

WASHBURN, G. E.—
Promoted from Chainman to Rodman ..... 225

WASHINGTON AQUEDUCT, ENGINEERS OF—
Secretary directed to complete set of drawings, plans, contracts, forms, etc., of ..... 136

WATKINS, FREDERICK W. (DIVISION ENGINEER)—
Services dispensed with ..... 202
Services extended to August 15, 1886 ..... 206

WEBB, WILLIAM H.—
Protests against closing of public hearings in relation to Quaker Bridge Dam ..... 36
Protests against construction of Quaker Bridge Dam; time for receiving communications extended to April 30, 1886 ..... 88
Communication from; in regard to springs on his property running dry, referred to Committee on Real Estate ..... 402

WEGMANN, EDWARD, JR. (DIVISION ENGINEER)—
Chief Engineer directed to place work upon Engineering Division No. 7 in charge of ..... 56
Assigned to Fifth Division ..... 221

WHALEN, WILLIAM—
Appointed Laborer ..... 382

WHEELER, H. R.—
Promoted from Leveler to Assistant Engineer ..... 222

WHEELER, WILLIAM W.—
Appointed Tunnel Inspector ..... 6
Compensation to be at rate of $5 per day ..... 160
Compensation fixed at $150 per month ..... 269

WHISTLER, THOMAS D.— PAGE
Honorably discharged as Assistant Engineer..... 233

WHITEMAN, WM. B.—
Heard in relation to land on Tenth Avenue opposite Shaft 27..... 141
Heard in relation to lots to be taken near Shaft 27..... 164

WHITTIER, FRANK S.—
Appointed Inspector of Masonry..... ..... 388

WILSON, WILLIAM S.—(Ex-Purveyor.)
Secretary directed to return bond of .... ..... 29

WOLBRECHT, JOHN M. (Division Engineer)—
Assigned to Second Division ..... 221

WOOD—
On line of Aqueduct between Shafts 10 and 12A, sold to P. Dolan for $30..... 247

WOOD, JAMES—
Letter of; in relation to water of Croton Lake; placed on file..... 11
Heard relative to taking fee of lands on line of Aqueduct in Westchester County..... 164

WOOD, JOHN—
Assigned as Laborer to Third Division..... 224

WOOD, WALTER—
Secretary directed to furnish set of drawings, plans, contracts, forms, etc., to... ..... ..... 136

WORK—
On culvert across dumping grounds at Shaft 20, done by Heman Clark, accepted and final payment authorized..... 266
On crib-dock on westerly side of Harlem River near Shaft 25, done by Charles Peterson, accepted and final payment authorized..... 299
On culvert across dumping grounds of Shaft 23, done by O'Brien & Clark, accepted and final payment authorized..... 300
On culvert across dumping grounds of Shaft 19, done by O'Brien & Clark, accepted and final payment authorized..... 335
Committee on Construction to report cause of delay of; on Section 13. 368
Report of Committee on Construction in regard to above..... 375
Done by Coldwell, Wilcox & Co., in furnishing iron-work for blow-offs, etc., at Pocantico and Tibbitt's Brook, accepted and final payment authorized..... 422

(Y)

YALE, JOHN R.— PAGE
Appointed Chainman..... 382
Appointment as Chainman revoked..... ... ..... 405
Appointed Axeman..... 407

YATES, P. K.—
Assigned as Assistant Engineer to Fourth Division..... 224
Assigned to South Section of Fourth Division.... ..... 248

YONKERS, CITY OF—
Request of Board of Education of; that explosives be removed, referred to Chief Engineer for conference with Contractors..... 88
Request to remove stone from shaft sites, referred to Committee on Construction..... 119
Communication from Mayor of; in relation to removal of a culvert in said city, referred to Chief Engineer, with power..... 290



ER
JW

NOV 22 1932

NOV 23 1932